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Editorial

India has emerged as the fastest growing major economy in the world and is expected to be one of the top three economic power in the world over the next 10-15 years backed by its robust democracy and strong partnerships.

India retained its position as the third largest start up base in the world with over 8900-9300 start ups as 1300 new start-ups got incorporated in 2019 according to a report by NASSCOM. India also witnessed the addition of 7 unicorns in 2019 (till August 2019) taking the total tally to 24.

India's labour force is expected to touch 160-170 million by 2020 based on the rate of population growth, increased labour force participation and higher education enrolment among other factors according to a study by ASSCOHAM and Thought Arbitrage Research Institute.

This shows an improvement in economic scenario. Government aimed at energizing the Indian economy through a combination of short term, medium term and long term measures. Under "Make in India initiative" efforts are made to boost the contribution of manufacturing sector. In "Digital India initiative" focus is on three core components: creation of digital infrastructure, delivering services digitally and to increase digital literacy.

India's GDP is expected to reach 45$5 trillion by FY25 and achieve upper middle income status on the back of digitalization, globalization, favorable demographics and reforms. India is also focusing on renewable energy sources.

India is managing the effects of global slowdown with resolute measures in a host of sectors besides taking up structural reforms in taxation, banking and finance. Government of India unveiled multi- sectoral and multi –dimensional policy stimuli to boost stability and growth. These and similar other issues are current issues of global and Indian economic scenario. Some of these issues have been discussed in the articles in this number. Hope the reader and scholar will find it useful.

The editorial team does not own the responsibility for the data presented in the individual articles nor for the interferences made. The responsibility of the entire information and thought in the articles rests with the authors. However, new ideas are always welcome to improve the quality, content and authenticity. We would welcome opinions, suggestions and corrections, if any by the readers.

Prof. Suman Pamecha

Contents

An Analysis the Status of Food Security in TSP Region of Rajasthan

* Ms. Sana Haq

Introduction

Food security is essential to provide sufficient food to all population, so they can live active and healthy life. With worldwide economic development, food production has increased more steadfastly than the population, but despite of this reality hunger still persist in many parts of the world. In 2011-13, there were 842 million undernourished people, or 12 percent of the world populations were estimated to be suffering from chronic hunger. The vast majority of hungry people- 827 million of them – live in developing regions, where the prevalence of undernourishment is now estimated at 14.3 percent in 2011-13. According to Food and Agriculture Association (FAO) - ' Food security exists when all people at all time have both physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.' According to this definition, food security has three dimensions: Food availability, Access to food and its Utilization. The first dimension relates to agriculture production, food supply and accounts for assertions that food must be available at all times. The second dimension covers access by individuals to adequate resources to acquire appropriate food for a nutritious diet. Finally, utilization encompasses all food safety and quality aspects of nutrition. These entire dimensions are related to health, including sanitary conditions across the entire food chain. India is home to more than a quarter of the hungry people in the world. The effect of climate change on agriculture will adversely affect Indian agriculture, thereby making food availability scare. The existing production levels barely manage to keep pace with the growing population, a problem that is aggravated by high disparities in resources and purchasing power. India currently produces 230 million tons of cereals to meet the need of a population of 1.15 billion, but this availability is still not sufficient. According to the National Sample Survey Organization of India, People who reported zero meals per 1000 persons came down marginally from 16 in 1993-94 to 14 in 1999-2000, but still hunger persist among large section of the population. The study 'Report on the State of Food Insecurity (2008) by M.S. Swaminathan describe that the incidence of food and nutritional security is not uniform in the country. In agriculture backward states like Bihar, Orissa, Rajasthan, which are also highly populated, the challenge of food insecurity is higher. Rajasthan is the largest state in the country with a geographical area of

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3.42 lakh square kilometers. It occupies about 10 percent of the total area of India. Due to uncertain rainfall and drought conditions, Agriculture in Rajasthan is basically 'rainfed'. Only 30 percent of the cropped area is irrigated and major parts of the state are under 'rainfed'. The rainfall received is mainly erratic in nature which results in frequent crop failure and food insecurity. A state producing sufficient food per capita at present may not be able to produce the same per capita production in future, due to land degradation, drought, or lack of incentive prices. The salient features of the state are given in table:

Table : 1 Socio-Economic Indicators of Rajasthan

S.NO	Indicators	Year	Unit	Rajasthan
1.	Geographical Area	2011	Lakh Sq.Km	3.42
2.	Population	2011	Crore	6.86
3.	Population Density	2011	Population per Sq. Km	201
4.	Agriculture	2011	Hect.	29.98
5.	Net irrigated area	2011	Percentage	39.49
6.	Sex Ratio	2011	Females Per 1000 males	928
7.	Total Literacy Rate	2011	Percentage	67.06
8.	Birth Rate	2011	Per 1000 midyear population	26.2
9.	Death Rate	2011	Per 1000 midyear population	6.7
10.	Infant Mortality Rate	2011	Per 1000 live births	52
11.	Maternal Mortality Ratio	2011	Per lakh live births	320

Source : Census 2011 (provisional), SRS Bulletin June 2011

The threat of food security tends to be greater in TSP Region of Rajasthan; incidence of poverty is higher here. Rajasthan have 16.2 percent ST Population of India. The concentration of the ST population is greater in

southern parts of the state which is banswara, Udaipur, dungarpur. In tribal regions, food and livelihood insecurity go together as majority of tribals are landless, marginal workers and wage workers here. The Govt. of India has made provision under special central assistance for welfare of tribal community of TSP area. Funds flow to TSP area is being made through special central assistance and state plan budget, but these funds have failed to make ant dent on unemployment, poverty and incidence of food security. Due to this, the issue of food security in tribal areas of Rajasthan requires interventionist approaches and a customized way to achieved targets. In this context, the proposed paper attempts to look the status of food security in the state of Rajasthan by following objective and methodology:

Objectives:

1- To analyze the availability, access, and utilization of food in Rajasthan.

Methodology:

Secondary data will be used for the study. For the analysis of data composite food security index will be concluded, it is based on following sub indices:

Food availability index- it is based on following indicators:

1- Percentage of forest area to total geographical area

2- Net irrigated area

3- Per capita agriculture production

Food accessibility index- it is based on following indicators:

1- Percentage of marginal workers to total workers

2-Percentage of households below poverty line

3- Percentage of female literacy.

Food absorption index-it is based on following indicators:

1- Access to safe drinking water

2- Access to primary health services

Food Availability in Rajasthan

Food availability refers the quantity of food available, whether through own production or from the market

and Govt. schemes. Rajasthan is the state, where has wide variation in climatic conditions, which causes regional disparities across districts and regions. Some districts come into the high rainfall and some districts mostly the southern and western part of Rajasthan come into the low rainfall, so that the agriculture production and productivity, irrigation facility are also different among the districts. Drought and famine are also a big problem of Rajasthan, because of that the agriculture production is become very low, because in that time water has not available for the crops and land is become 'Banjar'. In this analysis three indicators have been chosen to determine the food availability status in state, which are forest, irrigation and per capita agriculture production. Forest is the common property resources. Availability of forest area affects rainfall which is important for irrigation and agriculture production. Most of tribal districts of Rajasthan have high concentration of forest coverage, because these peoples are dependent on forest resources for their livelihood. As we concern about irrigation and per capita agriculture production, they both indicator are dependent on each other. Irrigation is an important factor for stabilizing agriculture production and cropping intensity. The district which covers good rainfall and come into canal command areas, they get irrigation facility and the per capita agriculture production has higher there. But in western part of Rajasthan where rainfall is very low, irrigation facility are not available, the farmers can produce only single crop for domestic consumption. Udaipur, dungarpur, barmer, jaiselmer, sirohi, sikar, ajmer, these districts have very low percentage of irrigation facility so that the agriculture production and productivity are also very low in these districts which is less than 15 to 25 percent. If irrigation facility can be available for all districts then it is rising agriculture productivity which increases rural incomes and lowers food prices, making food more accessible to the poor, which is improving districts food security position.

Table : 2 Food Availability Index of Rajasthan

Districts	Percentage of forest area to total geog area	Percentage of net irrigated area	Percentage of per capita agriculture output
Ajmer	1.87	0.96	1.7
Alwar	5.45	9.1	9.9
Banswara	3.78	6.1	3.3
Barmer	1.91	2.6	1.09
Bharatpur	1.33	6.7	6.8
Bhilwara	2.38	2.4	3.1

Bundi	4.79	4.1	3.3
Chittorgarh	5.56	3.8	4.0
Churu	0.27	1.3	5.4
Dholpur	1.95	2.1	4.0
Dungarpur	2.11	0.39	2.5
Ganganagar	1.93	11.54	0.71
Jaipur	2.89	5.9	9.7
Jaiselmer	1.77	2.1	8.0
Jhalawar	4.12	4.8	0.58
Jhunjhunu	6.23	5.4	7.7
Jodhpur	0.74	4.3	5.1
Kota	5.50	6.8	6.2
Nagaur	0.73	5.0	3.1
Pali	2.94	1.6	6.6
s. madhopur	0.28	3.9	2.8
Sikar	1.95	0.47	5.7
Sirohi	5.01	1.5	0.74
Tonk	1.02	3.6	2.9
Udaipur	12.66	1.2	2.25

Source : Statistical abstract of Rajasthan 2011-12, Agricultural statistics of Rajasthan 2011, Economic review of Rajasthan.

Food Accessibility in Rajasthan :

Availability of food is necessary but not enough to ensure food security, it also is affordable and people should be able to access it. Access means, the capacity of people's to buy things, their earning, their livelihood and other socio-economic factors. If food availability is sufficient in the state but people has no money or no income to purchase it, so food security is not been achieved. For this analysis, three indicators have been chose which is BPL household, Marginal workers and Female literacy. Below poverty line is an economic benchmark and poverty threshold used by the Govt. to indicate economic disadvantage and to identify

individuals and households in need of Govt. assistance and aid. In Rajasthan the incidence of poverty is higher in TSP regions because most of the tribal's are marginal workers which mean that they should get work for only less than 183 days all in the year. Dungarpur, Udaipur, chittorgarh, sirohi, barmer, bhilwara, alwar these districts have high percentage of marginal workers, the people of these district get less day of work, so their income is very low and they have less purchasing power to buy food from the market. For the help of those people's government has also made policy and programmes so that they can get food from cheap rates comparative with market prices, but the lack of awareness they don't get profit from such programmes. As we concern about the female literacy, it has been recognized as the single most important factor to increase food security and decline in malnutrition and mortality levels. Girls who attend school and obtain at least the basic skills can teach right health and hygienic practices to their children once they become mothers. Female literacy can have a bearing on the nutritional status of families and consequently positively impact food security. Literacy rate in Rajasthan has seen upward trend and is 67.07 percent as per 2011 population census. Literacy rate among women in Rajasthan has increased from 43.9 percent to 52.1 percent over the past 10 years. In Rajasthan the districts who have highest female literacy is jaipur, jhunjhunu, ajmer, kota, jodhpur, ganganagar, S. madhopur and Udaipur, sirohi, barmer, bhilwara come at the bottom of the literacy rate because most population of these districts are tribal and poor and they have lack of awareness.

Table : 3 Food Accessibility Index of Rajasthan

Districts	Percentage of BPL households	Percentage of marginal workers to total workers	Percentage of female literacy
Ajmer	1.8	3.2	56.42
Alwar	3.5	7.6	56.78
Banswara	7.9	5.4	43.47
Barmer	7.0	6.7	41.03
Bharatpur	2.6	5.4	54.63
Bhilwara	5.4	3.8	47.93
Bikaner	4.5	3.3	53.77
Bundi	1.7	2.3	47.00
Chittorgarh	3.4	2.1	46.98
Churu	3.6	3.9	54.25

Dholpur	1.4	2.9	55.45
Dungarpur	7.5	6.1	46.98
Ganganagar	3.6	3.3	60.07
Jaipur	3.5	5.8	64.63
Jaiselmer	1.3	1.6	40.23
Jalore	4.2	3.4	38.73
Jhalawar	2.8	3.0	47.06
Jhunjhunu	0.88	4.3	61.15
Jodhpur	3.7	0.14	52.57
Kota	1.8	2.4	66.32
Nagaur	3.4	0.11	48.63
Pali	3.6	3.44	48.35
s. madhopur	2.3	2.3	47.80
Sikar	1.4	4.4	58.76
Sirohi	1.7	1.5	40.12
Tonk	1.9	2.2	46.01
Udaipur	13.00	7.9	49.10

Source : primary census abstract of Rajasthan 2011.

Food Absorption in Rajasthan

Food absorption means being able to assimilate the food consumed for a healthy life. It has been estimated that in developing countries, one out of five people do not have access to safe drinking water, and roughly half are without adequate sanitation (WHO 2007). Food absorption or assimilation of the food into the body is the final step in achieving food security for a healthy and long life. Food absorption is possible only when the food consumed contains the entire essential nutrients and micronutrients and is consumed in a manner in which it is absorbed well into the body. The state has high infant mortality rate, is poor in health infrastructure facilities, and has a high percentage of severely wasted children and a very low life expectancy. All these factors make Rajasthan the fourth most food insecure state, after Bihar, Madhya Pradesh, and Gujarat, from

the food absorption angle. There have been two indicators which define food absorption which is access to primary health services and safe drinking water. Public health infrastructure helps the local inhabitants deal with the harmful effects to exposure to diseases. Health status of a population depends on a number of factors. This include, household economy, livelihoods, poverty, food security, social development especially literacy and education. In Rajasthan, there have not been any measurable increases in the number of medical institutions other than primary health centers and the rural sub-centers. Till date, only one fifth of the total villages in the state have access to health facilities within a distance of 5 km. In 4 districts baran, Bikaner, jaiselmer, dholpur, and sirohi, access to health facilities was extremely low i.e. only about one-tenth of the total villages. As in the case with education and road connectivity, jhunjhunu, jaipur, Udaipur, nagaur districts lead access to health facilities. Access to safe drinking water in Rajasthan is higher only in regions covered under canal command areas or that and has good rainfall conditions. Besides, in certain areas, the provision of safe drinking water has been made through the transfer of water from irrigation projects. In water scare regions as in the western arid region districts and flood- prone districts, the proportion of access to safe drinking water is considerably lower. In these districts, members of households, particularly women have to cover long distances to fetch drinking water. In this regard efforts made by the government under various schemes such as the Rajiv Gandhi Drinking Water mission have yielded results in large parts of the state. But there is a need to make sustained efforts in certain areas, particularly the water scare districts in the western arid hill regions.

Table : 4 Food Absorption Index of Rajasthan

District	Access to primary health centers	Access to safe drinking water
Ajmer	3.2	29.7
Alwar	5.3	47.6
Banswara	3.1	27.8
Barmer	4.5	15.3
Bharatpur	4.3	8.8
Bhilwara	4.7	17.4
Bikaner	2.8	30.4
Bundi	1.8	63.4
Chittorgarh	2.8	17.2
Churu	4.4	30.2

Dholpur	1.5	67.4
Dungarpur	2.8	14.9
Ganganagar	3.1	14.7
Jaipur	6.6	74.6
Jaiselmer	1.0	42.8
Jalore	3.9	44.2
Jhalawar	2.2	65.6
Jhunjhunu	7.3	14.1
Jodhpur	4.9	53.2
Kota	2.0	40.4
Nagaur	6.5	37.8
Pali	4.9	40.7
s. madhopur	1.6	54
Sikar	5.1	44.6
Sirohi	1.6	45.5
Tonk	3.4	17.2
Udaipur	5.3	16.6

Source : Rajasthan human development report 2011-12, Primary census abstract of Rajasthan.

According to our calculation of all indicators the composite food security index and the ranks of districts should be developed. All these factors are explaining food security situation across districts of Rajasthan. A large number of dealing with all three components which is availability, access and absorption are being implemented in the state of Rajasthan. The overall food security index shows that Barmer, Sirohi, Udaipur, Dungarpur, Banswara, have been identified the extremely insecure districts. Most of the central and southwestern districts are in the category of severely insecure. Only Jhunjhunu, Kota, Jaipur, Ganganagar, Sikar are identifying the category of secure.

Table : 5 Composite Food Security Index

Districts	Food security index	Rank
Ajmer	0.44	12
Alwar	0.50	5
Banswara	0.36	23
Barmer	0.40	19
Bharatpur	0.47	7
Bhilwara	0.44	11
Bundi	0.46	8
Chittorgarh	0.43	13
Churu	0.45	9
Dholpur	0.47	6
Dungarpur	0.38	21
Ganganagar	0.51	3
Jaipur	0.50	4
Jaiselmer	0.42	16
Jalore	0.43	14
Jhalawar	0.43	15
Jhunjhunu	0.57	1
Jodhpur	0.42	17
Kota	0.53	2
Nagaur	0.44	10
Pali	0.40	18
S. madhopur	0.43	11
Sikar	0.50	6
Sirohi	0.38	20
Tonk	0.43	12
Udaipur	0.36	22

Conclusion :

At an aggregate level the state has achieved "self-sufficiency" in food production in a normal year. But these normal years are very few and in- between. In this paper we show that ensuring food security and improving nutritional status is a challenge for the state as a whole. According to the ranking, the food insecurity problem is very severe in tribal's region or districts of Rajasthan because these people's having not so much land for agriculture so they can produce only limited crop for their domestic consumption and more over they have not so much employment opportunities, which they cannot give proper food to their entire family. Despite of this, the peoples of these families are undernourished. For food security of these regions government has made policy and also give information to them for all profits and schemes, and for this, NGO'S and sarpanch of panchayatsamities also support the government. Moreover for food security, it is important to make employment for peoples especially for tribal's so that they should get work which increases their incomes and they purchase proper and nutritious food for their entire family, it is increases skill levels which is helpful in human resource development. In the end of this paper, we have endeavored the most insecure districts in two lowest categories i.z. extremely low and severally food insecure. They need urgent attention of govt. and policy makers.

Terms	Secure	Moderatey secure	Moderatey insecure	Severally insecure	Extremely insecure
FSI	Jhunjhunu Kota	G.nagar, Jaipur, Sikar, Alwar	Bharatpur Dholpur Churu bundi	Chittorgarh Jhalawar Jodhpur Nagaur tonk	Sirohi Udaipur Dungarpur Banswara Barmer

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Role of Economic Infrastructure in Rural Botswana : A Case Study of Ntlhantlhe Village

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Abstract

There seems to be a little understanding of the linkages between uses and impact of economic infrastructure in rural areas in developing countries in general. This lack of reliable data and information about significant positive impact of economic infrastructure in rural economy is believed to limit the room for the government of Botswana to choose investment in economic infrastructure as a way to develop rural areas. Therefore the purpose of this study is to estimate the roles of economic infrastructure in rural economy of Ntlhantlhe village in Botswana. A descriptive analytical design was used to study 50 households in Ntlhantlhe. The sample population was randomly selected, with the micro enterprises purposively selected. An interview schedule was used to collect necessary information from respondents. The information covered the changes in income and consumption levels since having access to economic infrastructure, the establishment of new micro enterprises as well as the employment opportunities created. The results show that despite Botswana's middle income status, public investments in infrastructure like electricity and roads still have positive marginal impacts on rural poverty reduction and the improvement of the economic status of rural population.

The analysis depicts that the male respondents comprised 24 percent while females comprised a larger part of 76 percent of the entire study subjects. The household reflected an average of 6 persons per household, with the majority (60%) of respondents having acquired primary education. The results showed that majority (52%) of people are cohabiting if not staying alone. Findings have also shown that the main use of electricity is lighting while the road is mainly used for accessing health and social services, contributing positively to agricultural production. Lot of people indicated a significant improvement in their incomes and consumption. Inferential statistics show that sex, marital status, educational level and household size have a significant impact on the extent of benefiting from economic infrastructure.

Introduction

Africa is the second largest continent in the world after Asia. It is believed to be one of those poor continents worldwide; as majority of the population in many African countries still live in rural areas with low standards

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of living. According to the United Nations' report published in 2010, approximately 70% of the African population lives in rural areas. However most of the economic infrastructure developments are done in urban areas. Available data indicates that majority of rural Africa has low access to electricity, water supply and sanitation, telephones and the road conditions are still in low standards, as much development is done in urban areas. Therefore the investment in economic infrastructure remains vital for rural economy.

Botswana a typical middle income country in Africa with a population of about 2 million is currently one of those sub-Saharan countries having poor economic infrastructure. Botswana was among the highest growing economies in the world during 1985-2005 and achieved a reduction in its overall incidence of poverty from 60 per cent in 1985/86 to 30 per cent in 2002/03. The incidence of rural poverty in Botswana decreased from 55 per cent in 1985/86 to 40 per cent in 1992/93, however, it increased to 45 per cent in 2002/03 (Moepeng and Tisdell, 2010). Thus, an important challenge for Botswana today is bringing its economic growth rate back up to the sort of levels achieved before.

The urban population in Botswana make up 60% of the population, while the remaining 40% are rural dwellers mostly relying in agricultural production (World Bank, 2012)**.** Despite the majority of the population living in rural areas, much of economic infrastructure is used in urban areas, with a small amount or poor developments in these rural areas. The need for economic infrastructure arises from the fact that there is a greater need for accessibility of it, as it is central to practically all aspects of the core conditions of poverty – such as poor health, lack of access to water and electricity, sanitation and education. As such, rural infrastructure development is usually linked with improved economy as it reduces poverty, as well as being able to achieve the Millennium Development Goals. Sharing the same sentiments, Nakahigashi and Yoshino (2000) stated that, '[i]nfrastructure as the capital stock that provides public goods and services, it produces various effects, including those on production activities and quality of life for the households, which thus permeate the entire society.'

Poverty in rural areas is most widespread thus making rural development an area of concern in Botswana. Despite Botswana's growth in private investment, it is hypothesized that the availability and accessibility of economic infrastructure forms a fundamental part of rural development strategies. It serves as a mechanism and catalyst for rural transformation through the reinforcement of rural development efforts. However, as there is little information on the significance of economic infrastructure in rural economy, this present research is an attempt to explore those roles of economic infrastructure in enhancing the socio-economic status of rural areas in Botswana. As infrastructure development is regarded by many economists as the sine

qua non of rural development, it is of importance to reveal those connotations.

Botswana is a landlocked country, with about 40% of her population living in rural areas and a large majority of these people depends on agriculture, mostly subsistence farming, and producing 2.46% of GDP but contributes only 0.19% of registered export in 2011 (World bank, 2012).During last 40 years of independence the country still has an inadequate infrastructure particularly in rural sector. According to the population census 2011, about 800 000 people live in rural areas with about 25.5% living below the poverty line in 2010 **(**Botswana Core Welfare Indicators Survey (BCWIS), 2010**)**. Domestic savings and foreign direct investment are low, forcing the country to rely heavily on foreign assistance and concessional loans as investment sources for economic development.

Rural areas, world-wide, are characterised by low levels of accessibility to electrical energy and telecommunications, poor water supply and sanitation as well as stumpy roads development. As an area of concern, the development of such infrastructure has been neglected to a large extent in the past, thereby imposing significant limitations on growth and development of rural communities. In spite of this fact, economic infrastructure has been universally recognized as the most important propellant for community and national development. Botswana is not immune to this trend of low economic infrastructure development and as such, in recent years, she has experienced an increase in rural roads, water supply and sanitation, telecommunication and electrification investment. According to Lombard and Coetzer(2009), this is mainly due to the need for the development of rural as well as the positive impact that infrastructure investment could generate on rural communities, should they have an adequate support infrastructure network that is sustained over the long term.

Rural development has always been an integral part of Botswana's planning strategies, and taking rural electrification into consideration, available evidence shows that 12% is connected in Botswana (Ketlogetswe, Mothudi&Mothibi, 2006). As compared in the past, this shows some improvement in the rural economy and it is now widely believed economic infrastructure has a noteworthy part to play in promoting social and economic development, including the improvement of individual livelihoods, community prosperity and the achievement of national development goals related to the UN Millennium Development Goals. Notwithstanding this, there is a very little understanding of the linkages between uses and impact of economic infrastructure in rural areas in developing countries in general. Not all rural areas in Botswana have access to better economic infrastructure as an investment for economic development. So lacking reliable data and information about significant positive impact of economic infrastructure in rural economy may limit the room

for the government to choose investment in economic infrastructure as a way to develop rural areas.

Further, this lack of data and information on the linkages between economic infrastructure and rural economy may have effects on national policy strategies to combat poverty as most of poor people in the rural areas can depend on infrastructure for their income generating (Sawe, 2004). This is where a need of this study arises, which will be conducted to reveal the contribution that is, giving insight of the changes brought by economic infrastructure as a panacea for socio-economic advancement in the rural areas. It will also examine grassroots communities' perception and whether some of these perceptions can be incorporated in the infrastructure development in rural areas. It is expected that findings of this study will be considered as general representative of impacts of economic infrastructure in rural areas in Botswana. In addition, they could be used to catalyse actions aimed at improving income generating opportunities, changes in equity and empowerment and finally poverty reduction To investigate the extent of economic infrastructure development in rural areas. To investigate the impact of economic infrastructure development on the socio-economic advancement

The theoretical contribution of this research is in exploring the roles of economic infrastructure in enhancing the socio-economic status of rural areas in Botswana.The emphasis is in rural economy as the country is largely covered by rural areas, with nine administrative districts being rural and only six categorised as urban. Currently, there is no or less local research undertaken to reveal these changes brought by investing in rural economic infrastructure. The available international literature is more based on one specific aspect of economic infrastructure or the other. Therefore, this research discusses specially some aspects of economic infrastructure at a time, in this case considering electricity, roads, telecommunications, and water supply and sanitation. The research findings and explanations are hoped to provide a better understanding to policy makers, investors, modern energy suppliers and other relevant stakeholders on the linkages and impact of economic infrastructure in rural economy.

The findings of this study are further expected to facilitate and stimulate the productive uses of economic infrastructure for increasing income thus reducing poverty and consequently enhancing rural economy. It is believed that the availability and reliability of information from the case study could enable decision-makers, government and other relevant stakeholders to support efforts to improve livelihoods of rural population through developing the economic infrastructure. More importantly, researchers, academics and students will find the output of this study useful in decision making and for enhancing further teaching and research in the subject-matter area.

Review of literature

The emphasis on rural economy as the country develops is important but there is no research undertaken to reveal these changes brought by investing in rural economic infrastructure. This chapter discusses empirical issues of the study, dealing with the marginal benefits of having access to economic infrastructure, specifically electricity and roads.

Empirical Literature Review: The usage of the word "infrastructure" has evolved quickly in the past two to three decades, especially between the 1980s and 1990s. Most governments have made it their priority to invest in economic infrastructure as a way to improve economic development. According to Wikipedia, infrastructure is now widely defined "as the basic physical and organizational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function". Wikipedia goes on to explain infrastructure as a term typically referring to the technical structures that support a society, such as roads, electricity, water supply, sewers, power grids, and telecommunications thus facilitating the production of goods and services. According to Nakahigashiet al (2000), infrastructure is the capital stock that provides public goods and services; it produces various effects, including those on production activities and quality of life for the households, which thus permeate the entire society.

The focus of this study is restricted to economic infrastructure that produces services to facilitate economic production or serves as inputs to production. There is need to differentiate as there are different types of infrastructure, including among others social infrastructure. In this context, economic infrastructure refers to assets held in transportation services, electricity, water supply and sanitation, and telecommunications sectors.

The roles of economic infrastructure are assessed specifically looking into their impacts in rural economy. The term "rural economy" has no single definition and according to the International Development Research Guide (2012) this is typically described in terms of its objectives: commonly described as the creation of jobs and wealth, and the improvement of the quality of life in rural areas. Rural economic development as a proxy of rural economy is described as a process that influences the growth and restructuring of an economy to enhance the economic well-being of rural communities. Rural areas in this context are those areas that are relatively far deprived in terms of economic infrastructure and physically located outside of areas that are administratively managed by urban authorities.

Socio-economic aspects are a significant part of overall economic and human development. Economic

infrastructure plays a major role in facilitating and enabling access to socioeconomic centres in rural areas and ultimately contributes to achieving equity in a country.

Several studies have been carried out over time to estimate the impact of economic infrastructure investments on socio-economic development. Although many studies in the past focussed on the direct impact, through the application of relevant software tools, the estimation of the indirect impact on socio-economic development is becoming more and more prevalent.

The degree of development of economic infrastructure in any area is considered to be a factor of crucial significance influencing political, economic and social progress and this must be considered in every stage of national and regional development planning. The provision of infrastructure forms an intrinsic part of rural development strategies, serving as a mechanism and catalyst for rural transformation through the reinforcement of rural development efforts. According to Emmanuel et al. (2009), the role of economic infrastructure in simulating greater economic development has been a target for some time. There is a general agreement that economic infrastructure is vital to rural development, although there is no consensus with respect to its impact under differing economic and social environment. The literature shows relatively positive statements made about the roles of economic infrastructure in rural economy, should they have adequate support sustained over long time. The roles of economic infrastructure have been shown to range from production, consumption, and generally the standard of living of rural population. Zhao and Kanamori (2007) claims that infrastructure has important implications on consumption and production. Taking electricity into consideration, they showed that this positively affect consumers' utility as it indirectly creates employment opportunities for them hence improvement in rural income. In agreement to that Lombard and Coertzer (2008) indicated that daily activities and living conditions of communities are positively impacted with a subsequent improvement in day-to-day access to public, family and social activities and also improved accessibility to work opportunities.

Cynthia et al (2005) came up with a study which supported the hypothesis on wage employment concerning increased employment and wage rate, but found that these did not accrue disproportionately to the poor. He indicated that the aggregated impact of economic infrastructure improvement taken together has a greater poverty reduction effect than their individual effects. This study recommended that investment in infrastructure like roads and electricity should be continued until national networks ensure that all people have access to quality services. With provision of affordable quality infrastructure to all nooks and crannies of

the country, the present technological advancement and social awareness can be significantly improved.

Unlike sectoral development, of, say, agriculture or industry, infrastructure does not directly increase output, but makes a significant contribution towards growth by increasing the factor productivity of land, labour and capital in the production process. Infrastructure like roads tends to enable diffusion of technology, as well as the exchange of skilled labour through the linkages with urban areas. These transport improvements reduce the cost of moving agricultural products (as their main source of income), therefore extend the market which in turn encourages more cultivation. Infrastructure development diminish the marginal costs which brings out the effects in cost saving and increase in production in a competitive market (Bhalla, 2011). In accordance with the benefits of rural infrastructure investment, Yoshida (2000) presented a positive analysis from various correlations between economic growth and infrastructure in Japan. In his analysis he found that infrastructure investment in rural area had a trend to correct the regional income disparities. Emmanuel et al (2009) aptly remarked that inadequacy of economic infrastructure is one of the major bottlenecks to socio-economic development and national integration in many developing countries, further making the introduction of other basic social infrastructure such as education and health services very difficult. Taking these facts into consideration, he claimed that economic infrastructure should be accorded priority in the catalogue of development projects by the administrative machinery of any country meant to transform the living conditions of the rural people.

Even though most of empirical literature was in consensus that investment in economic infrastructure in rural areas could result in significant transformation of rural population to betterment, Igbinovia and Orukpe (2007) did not ignore the fact that economic infrastructure can come with other problems. Their study in Nigeria highlighted the negative impacts like environmental pollution and diminishing of manual labour. They illustrated that the environment might become hazardous and unsafe for species if not well managed and controlled, with pollution depending on type of infrastructure like energy sources and sanitation. But all in all the benefits of economic infrastructure had been reported to outweigh their costs.

Improved economic infrastructure is one of the fundamentals in modern society as it is becoming imperative for socio-economic growth and development. The absence or inadequacy of these infrastructures will result to a retarded development.

DATA BASE AND METHODOLOGY

Improved economic infrastructure is one of the fundamentals in modern society as it is becoming imperative for socio-economic growth and development. The absence or inadequacy of these infrastructures will result to a retarded development. Having stated the statement of the problem and the objectives of the study in chapter 1, this chapter gives an overview of how the study was conducted. This is how data was collected, analyzed, model specification and priori expectations.Taking into account the empirical literature reviewed in the previous chapter, this section discusses the manner in which the variables in the proposed model would be considered and are expected to impact on the level of benefiting from access to economic infrastructure services.

Gender discrimination among of beneficiaries is considered in many studies. In the present study SEX represents whether the respondent is male or female. It is entered as a dummy for male, therefore it was expected that sex will have a positive impact on benefits from access to economic infrastructure. This meant that you are likely to benefit more from the access if you are a female.

MAR represents the marital status of the respondent. As it was entered as a dummy for single, it was expected that this variable have a positive impact on the benefits acquired from access to economic infrastructure, people who are married should benefit more from the infrastructure.

AGE represents the age group of the respondent. A negative relationship was expected such that as people get older they benefit less from access to economic infrastructure compared to the younger group ages.

EDU represents the educational level of the respondent. The expectation was that education should have a positive impact on the level of benefits as someone who is learned should understand better the importance of infrastructure and hence use it to his own benefits.

HS represents the household size of the respondent. The anticipation was that this variable should have a negative impact on the dependent variable, such that the larger the family, the less the benefits as usually big families tend to be poor.

Study Area

Bliss and Stern (1982) have undertaken a study of an Indian Village …. In Botswana rural areas cover …..% of geographical land. The research was conducted in Ntlhantlhe, one of the small rural villages situated in

Southern district in the southern part of Botswana. Most of people in southern Botswana diversify income generation system by getting involved in rain fed cultivation, livestock management, gathering of veld products, wagelabour in poverty reduction activities like Ipelegeng as well as formal employment in the government, where they work in schools and clinics. The village is located in an area with abundance of livestock rearing and arable farming, thus resulting in residents relying entirely in subsistence agricultural production for living. As a way to improve rural economy, the government has improved economic infrastructure as there are developments of electricity, roads, telecommunications and water supply and sanitation but with little access to them. Ntlhantlhe has a population of 1130 (CSO, 2011) and Bangwaketse are the dominant ethnic group.

Therefore, Ntlhantlhe was chosen as the study area because there are developments of economic infrastructure and thus form a good and appropriate study population as the study was able to get the linkages of infrastructure and socio-economic advancement.

Conceptual framework: The model in the study is specified as follows;

BENEF= *f* (SEX, MAR, AGE, EDU, HS)

Therefore the linear form of equation is estimated as;

$BENEF=\beta_0+\beta_1SEX_i+\beta_2MAR_i+\beta_3AGE_i+\beta_4EDU_i+\beta_5HS_i+\varepsilon_i$

Where;

Benef= the level of benefiting from the access to economic infrastructure services

SEX_i= sex of the respondent (male or female)

MAR_i= marital status of the respondent (single, married or widowed)

AGE_i= Age-group of the respondent

EDU_i= Educational level of the respondent (no formal education, primary or secondary level)

HS_i= Household size the respondent is staying in

E= Error term

In this study the model used is a linear regression model.

Data Collection Techniques and Tools: Data can either be qualitative or quantitative. Qualitative data are a set of data information that cannot be quantified. On the other hand, quantitative data are those which take numerical values. Nonetheless, the study focuses on examining the roles of economic infrastructure in rural economy. There are tools and techniques used in collecting data and in this case interview schedule and

questionnaires were used to collect the relevant information for my study. Interview schedule was used for collecting open and close ended information when addressing a non literate population. This research required the use of an interview schedule as some of the populations I was addressing are illiterate. The schedule covered mostly their perceptions on the state of economic infrastructure and its relevance to rural development. So an interview is more appropriate in collecting information from rural population. Being a rural area does not mean all people are illiterate, so for those who able to, the questionnaires were dropped so that they respond during their spare time and collected later on.

Sampling Procedure: This study is a descriptive and analytical study design. The aim was to have a detailed picture of how economic infrastructure developments influence rural economy. In terms of sampling, a multi-stage sampling procedure was used to sample a total of 50 from this community. First, the selection of the communities was purposive. I then used simple random sampling to select specific individuals from whom economic infrastructure and effects on their living standards information was elicited. In this study area, 45 individuals were selected for interview sessions and the rest were administered with questionnaires. In total, 50 households were randomly selected and interviewed, including farmers as well as small business entrepreneurs as the study wanted to explore how economic infrastructure affects their productions.

Data Analysis: The primary purpose of this study was to examine and analyze the roles of economic infrastructure in rural economy. Therefore this study utilized both qualitative and quantitative methods as methods of data analysis. Quantitative method was utilized when analyzing findings from questionnaires administered to individuals. Raw data in numeric form on questionnaires was organized into a form suitable for computers, presenting tables, frequency tables and pie charts. The uses of Microsoft excel and SPSS was vital for an easy management of data. Descriptive statistics (such as frequency, percentages, and measures of central tendencies and pie charts) were used in summarizing the data.

From the open ended questions and interviews, raw data was be coded into similar categories on the basis of themes, concepts or similar features like whether it affects consumers, producers or society at large. This qualitative data was analyzed using thematic analysis. I thereafter developed new concepts, formulate conceptual definitions and examine relationships among concepts.

Cross tabulations, frequency tables and charts were used to present the data. The study also made use of regression analysis to correlate the extent of benefiting from economic infrastructure with socio-economic factors.

Analysis of results and discussion

This section presents empirical findings, discussions and explanations of results. This involves a careful scrutiny of results and the emerging evidence as per objectives and theory. The findings of the study are based on collected data in Ntlhantlhe from fifty (50) households. The data was entered into SPSS (version 19.0) for analysis.

Demographic data: Lifestyles of the rural population are vastly dynamic; they change, adapt and transform over time as a product of social, economic and environmental changes. As such, one has to understand the general background of farmers as well as the social context in which they operate. This section gives an overview of socio-economic profiles of farmers.

Gender distribution: According to Table 4.1 below, the total of 50 households was interviewed during the survey at Ntlhantlhe village. The respondents consisted of both males and females, with the distribution showing that the females dominated. It indicates that 66 percent of the people interviewed were females and a minority of 34 percent was accounted for by males. As shown by the figures, people found home were mostly females and they explained that this is because males travel often; either going to the cattle posts or working in towns , while they (females) have to stay back and take of children and the yard.

Table 1 : The gender distribution of people interviewed during the survey

SEX	FREQUENCY	PERCENT
MALE	17	34.00
FEMALE	33	66.00
TOTAL	50	100.00

Source : Field survey, 2013

Marital status of respondents: The marital status of residents was collected based on the hypothesis that married people have more access to the economic infrastructure and hence better economic status compared to those single or widowed. Table 4.2 indicates that the majority of 52 percent recorded to be single. These people pointed out that the marriage costs are just too high, therefore most of them resorted to cohabiting instead. A lesser amount of 32 percent showed that they are in marriage while 16 percent indicated that they have lost their spouses; this was mostly the elderly population.

Table 2 : Marital status of respondents

SEX	FREQUENCY	PERCENT
SINGLE	26	52.0
MARRIED	16	32.0
WIDOWED	8	16.0
TOTAL	50	100.0

Source : Field survey, 2013

Age distribution of respondents : The data in Table 4.3 show the distribution of respondents by their age. As anticipated the distribution is shifted towards older age, with a significant number of respondents falling in the age groups 46-50, 51-55 and above 55. Nevertheless, some 4 percent of the households were owned by the youth, aged between 25-30 and 31-35. Having a less number of the youth owning houses could be a result of their high migration rates and other social factors that are prevalent today which impact on their lifestyles compared to the older group.

Table 3 Distribution of respondents by age

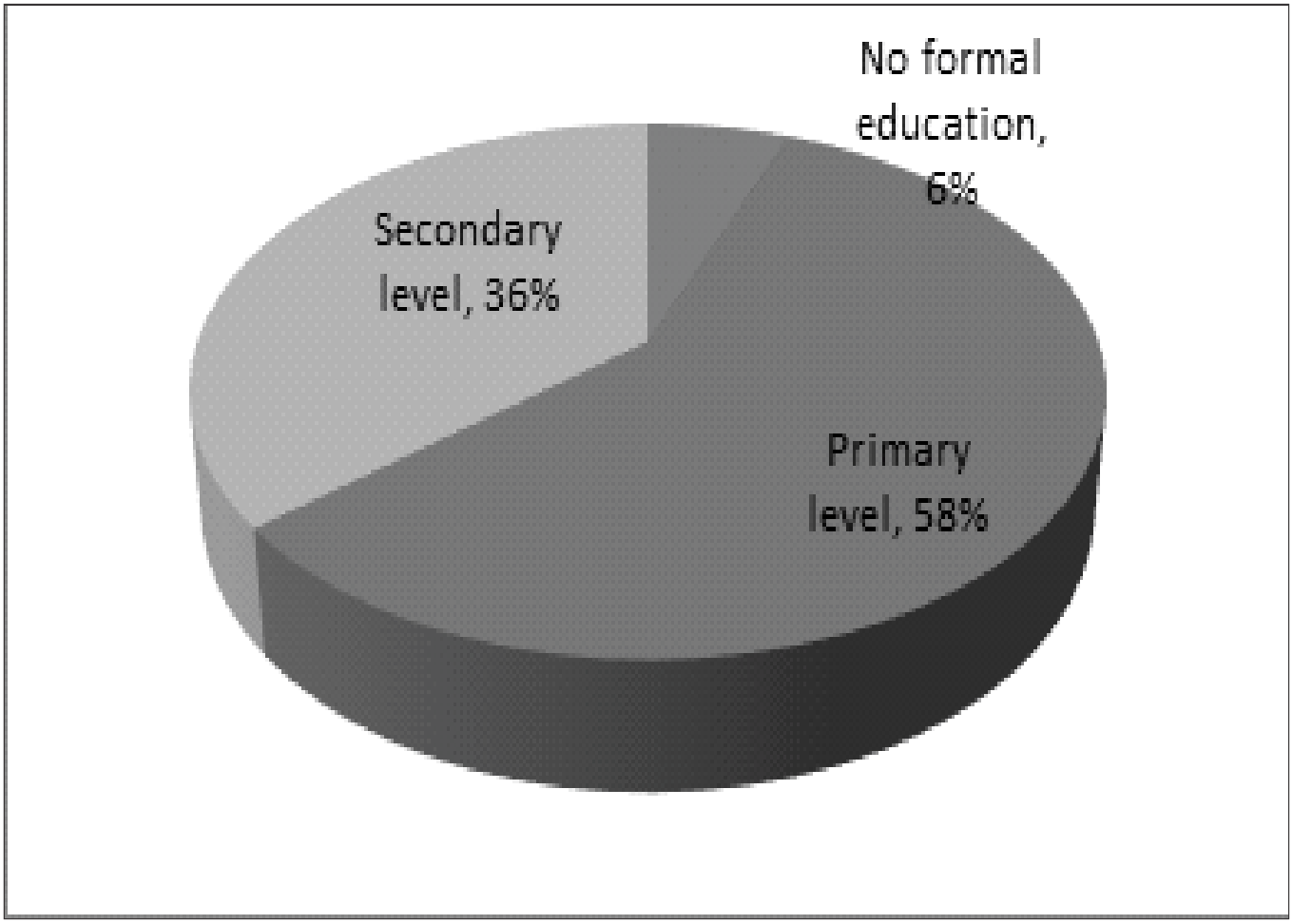
Age group	Frequency	Percent
Between25-30	2	4.0
Between 31-35	2	4.0
Between 36-40	4	8.0
Between 41-45	5	10.0
Between 46-50	14	28.0
Between 51-55	13	26.0
Above 55	10	20.0
Total	50	100.0

Source : Field survey, 2013

Level of education : This section discusses how the rural populations level of education influence their living standards, in reference to their access to economic infrastructure. It aims at determining how level of education affects one's ability to use roads and electricity services to their own benefit. The anticipation was that majority of people in rural areas have no or less formal education. Most importantly, this was the case during the survey as Figure 4.1below shows that a significant number (58%) of the study population have acquired up to the primary level. As shown in the age distribution, most of residents are beyond 50 years of

age, thus most of them are likely not to have formal education as it was not a priority during their times. They indicated that they spent most of their time working on farms so did not consider education that much; rather, it is today that they are investing much on their children so that they help them tomorrow. The findings indicate that it is these children who have taken it to their responsibilities that their parents enjoy the benefits of economic infrastructure. Other respondents have acquired to the secondary level (28%). Generally, the study found that the level of education indirectly affects the extent to which someone uses economic infrastructure.

Figure 1 : Level of education



Source : Field survey, 2013

Household size of respondents : Usually the rural population is characterized by large household sizes. The household size reveals the socio-economic status of the family. The average household size is about 6 persons. Table 4.4 below indicates that 40 percent of the respondents have 6 or 7 people in a household. Some 4 percent of the respondents pointed out that they had more than nine persons living in the same household, while the minimum size of 1 person per household was ascribed to 2 percent.

Table 4 Household size

Household size	Frequency	Percentage
Live Alone	1	2.0
2	2	4.0
3	4	8.0
4	4	8.0
5	7	14.0
6	9	18.0
7	11	22.0
8	7	14.0
9	3	6.0
Above 9	2	4.0
Total	50	100.0

Source : Field survey, 2013

Sources of household income: This section analyses the sources of income per household. People in rural areas have limited source of income, which changes frequently depending on the general economy of the country. Even though they are considered poor, there is one way or the other in which they supplement their daily consumptions.

Sources of household income: The village of Ntlhantlhe is a remote area; people from this area usually have limited sources of household income. In the village under consideration the sources of income for the households can be put in seven broad categories. From Table 5, it is shown that few people relied on one source or the other. While 26 percent of the households indicated that they have cash wage as their source of income, a total of 74 percent showed that it is not applicable to them. More importantly, 14 percent of households indicated that with developments in infrastructure, they have been able to establish enterprises thus having business income as source of income. A very small proportion (4%) of the study population pointed out that they have extra rooms that they are renting, especially to workers of Department of Roads. Since Ntlhantlhe is a rural place, farming is one of the major sources of income, salvaging 70 percent of households. Since farming is seasonal, the majority (48 percent) benefited from agricultural production during the past 12 months and only 22 percent during past 30 days. Taking the 'Remittances' into consideration, it is indicated that 58 percent of residents rely on it as a source of income, with 48 percent households having received remittances during past 30 days and only 10 percent had them during the past 12 months. Even though they complained that this is not enough for a living, they indicated that the little they get

from children or relatives living in towns have significantly helped them during dark days. Also with tarred road, they are certain to get the remittances at the right time.

Those who received cash loans or salary advancement were represented by 14 percent and these are the same people who indicated that they were able to get employed due to developments in infrastructure. Kanamori& Zhao (2007) shared the same sentiments as he elaborated that, '[i]nfrastructure, taking electricity into consideration, positively affect consumers' utility as it indirectly creates employment opportunities for them hence improvement in rural income. The analysis continues to show that 56 percent of the study population was enrolled for assistance by the government where they were able to get money to supplement their consumption. As poverty is severe in rural areas, government continues to provide assistance to the disadvantaged; like the destitute, old age as well as the orphans. These all are taken as measures for rapid rural economic growth and poverty reduction.

Table 5 : Sources of household income

Source of Household Income	Source of Income during past 30 days	Source of Income during past 12 months	Not Applicable
1.Cash wage	12(24)**	1(2)	37(74)
2.Business income	5(10)	2(4)	43(86)
3.Rental income	2(4)	0	48(96)
4.Sale of agricultural products	11(22)	24(48)	15(30)
5.Remittances	24(48)	5(10)	21(42)
6.Cash loans received (incl salary advance)	2(4)	5(10)	48(86)
7.Assistance from safety nets	24(48)	4(8)	26(52)

****Percentages in parenthesis ( )**

Source: Field survey, 2013

4.3.2 Cross tabulation of sources of household income and sex : From this data analysis, it is shown that females dominated in almost every source of income. Under agricultural production, as their main source of income, 44 percent of females indicated that they rely on it as source of income while only 18 percent of males have it for the same matter. During the survey, respondents pointed out that despite unreliable, poor climatic conditions, the developments in economic infrastructure have indirectly influenced their agricultural productivity, as such continuing to be the key source of household income. Females recorded a higher number because they are the ones who usually take that responsibility to manage and sell the products, especially the ones from the fields. The cross tabulation goes on to show that 50 percent of females received remittances whereas 4 percent of males received them. This much difference could be because of the case that children usually send money to their mothers rather than their fathers. The dominance of females on each means of livelihood could be because of the small sample dominated by females, but more importantly, more males were the ones recorded as working as 14 percent compared to 12 percent of females receive cash wages.

Table 6: Cross tabulation of sources of household income and sex

Sex	Cash	Business	Rental income	Agricultural products	Remittances	Cash loans	Safety nets
Male	14	4	0	18	8	6	38
Female	12	10	4	44	50	8	14
Total	26	14	4	62	58	14	52

***Multiple responses**

Source - Field survey 2013

Cross tabulation of sources of household income by the age groups: The cross tabulation below was created to determine how the sources of income are allocated among different age groups. According to Table 4.7, majority of respondents (62, 60, 54) rely on agricultural products, remittances and safety nets respectively. Supporting this observation, Andersen and Shimokawa (2006) showed that economic infrastructure stimulate agricultural investment and growth thus raising income generated from agriculture. The infrastructure also leads to better communications and reduce transportation costs hence making it easy for respondents to receive remittances. Under the source of household income 'remittances', respondents aged between 51-55 and those above 55 recorded high percentages of 20 and 18 respectively. Most of these

elderly people are not working therefore it is reasonable for them to be relying on agriculture and remittances from children. While 6 percent of the respondents from the age group 'between 41-45' rely on cash wage as their source of income, only 2 percent of the respondent from the age group 'between 25-30' relied on that as well. This is likely to be the active group as such hired as security guards at government offices or shop assistants. During one interview, the respondent elaborated that the infrastructure developments have enabled them to get employment opportunities, as some are working as shop assistants, probably established after the infrastructure developments.

Table 7 : Cross tabulation of sources of household income and the age groups

Source of household income								
Age group	**Cash wage**	**Business income**	**Rental income**	**Agricultural products**	**Remittances**	**Cash loans**	**Safety nets**	**Total**
Between 25-30	1(2)	1(2)	0	0	0	0	1(2)	5(10)
Between 31-35	2(4)	0	0	1(2)	1(2)	0	2(4)	6(12)
Between 36-40	1(2)	0	0	2(4)	0	1(2)	3(6)	8(16)
Between 41-45	4(8)	0	0	4(8)	4(8)	2(4)	3(6)	14(28)
Between 46-50	3(6)	1(2)	1(2)	8(16)	4(8)	3(6)	7(14)	23(46)
Between 51-55	1(2)	3(6)	1(2)	9(18)	10(20)	1(2)	4(8)	30(60)
Above 55	1(2)	0	0	7(14)	11(22)	0	7(14)	23(46)
Total	13(26)	5(10)	2(4)	31(62)	30(60)	7(14)	27(54)	

***Percentages in parenthesis ( )**
***Multiple responses**
Source: Field survey 2013

Cross tabulation of sources of household income and the education levels : Cross tabulation 8 indicates how one's level of education determines his/her source of income. Majority (8%) who rely on business income have shown that they have gone as far as secondary level. One business woman commended the government for having seen it fit to connect electricity and construct tarred road in their village, pointing out that it is this infrastructure that influenced them to establish businesses. While those who have gone as far as

primary level in education relied much on remittances (40%), respondents who relied much on cash wages were those who acquired secondary education. This is reasonable as generally it is the expectation that people who have gone further in school to get better jobs.

Table 8 : Cross tabulation of sources of household income and the education levels

Education level	Cash wage	Business income	Rental income	Agricultural products	Remittances	Cash loans	Safety nets
Never attended school	2(4)	0	0	2(4)	2(4)	0	1(2)
Primary level	4(8)	3(6)	2(4)	18(36)	20(40)	2(4)	17(34)
Secondary level	7(14)	4(8)	0	10(20)	6(12)	5(10)	8(16)
Total	13(26)	7(14)	2(4)	30(60)	28(56)	7(14)	26(52)

***Multiple responsesSource**

Field survey 2013

Household possessions and livestock ownership : To determine the economic status of the study population, the survey took into consideration the types of fuels using for cooking, lighting and heating as well as the assets they had. It also went to that extent of looking into the livestock ownership.

Fuels for cooking, lighting and heating: Since the connection of electricity and construction of the road in Ntlhantlhe village, many people's lifestyles have changed significantly. Table 4.9 below indicates that despite the connection and access, a significant proportion (62%) of the study population use wood for cooking. The respondents explained that even though they have connected electricity, they try to reduce costs by using firewood which they get for free. While 22 percent uses electricity for cooking, some 16 percent indicated that they have gas cookers which they use for cooking. Even though they are not used to the use of electric stoves those who had them explained how they have been spared the time and energy of going around looking for firewood. A great majority (72%) of households pointed out that they use electricity for lighting. The respondents indicated how this have reduced their costs on paraffin and candle which they were using before.

Those with businesses showed this is of great importance as it is also used for security. The survey found out that 82 percent use wood for heating whiles some 18 percent use electricity. The respondents elaborated that wood is their main source as of heat as it is the one usually used to heat water and also during winter it helps a lot.

Table 9 : Fuels for cooking, lighting and heating

	Cooking	Lighting	Heating
Electricity	22	72	18
Gas	16	-	0
Wood	62	-	82
Paraffin	-	22	-
Candle	-	6	-
Total	100	100	100

Not applicableSource

Field survey, 2013

Household possessions : The people in rural areas are characterized by low income levels and thus less ownership of assets. This collection of information is used to determine the economic status of households in rural areas. As indicated in Table 10, some 32 percent of respondents have either a car or tractor or donkey cart. Majority of these respondents have donkey carts and only one has a car. Radio or television was common assets as a great majority (82%) of the study population possesses them. Almost everyone in the village has a cell phone as 96 percent. While 60 percent of households have wheelbarrows, 58 percent indicated that they own refrigerators. There was a consensus that electricity has really improved their living standards as they are able to store foods in the fridge for longer times, indirectly improving their consumption levels. They do not have to worry about food rotting.

Table 10 : Household possessions

Asset	Frequency	Percentage
Car/tractor/donkey cart	16	32
Wheelbarrow	30	60

Sewing machine	1	2
Radio/TV	41	82
Refrigerator	29	58
Electric/gas cooker	19	38
Electric appliances e.g. computer	3	6
Telephone/cellphone	48	96

***Multiple responses**

Source : Field survey, 2

Livestock ownership : Rearing livestock is very common in rural areas in the southern part of Botswana. Cattle are one kind of livestock that most people have in Ntlhantlhe village. While 22 percent of respondents indicated that they own about 1-15 cattle, 26 percent showed that they have 31-50 cattle. Majority (88%) of the study population has goats more than any other livestock, where 46 percent own 1-15 goats and 36 percent have 16-30 goats. Sheep were owned by very few people (16%), of which have 1-15 of them. More importantly, it was observed that almost everyone who had agricultural production as their source of income, are the same people who were in possession of livestock.

Table 11 : Livestock ownership

No of livestock	Cattle	Goats	Sheep
0	14(28)	6(12)	42(84)
1-15	11(22)	23(46)	8(16)
16-30	8(16)	18(36)	0
31-50	13(26)	3(6)	0
Above 50	4(8)	0	0

***Multiple responses**

Source; Field survey, 2013

The use of economic infrastructure by enterprises and households

Small enterprises have always been a part of strategy for poverty alleviation in Botswana. Five enterprise owners and forty-five households were interviewed to determine how they have been benefited by the available economic infrastructure. The general anticipation was that everyone's living standard should have been improved from the services of electricity and tarred road. The analysis of results is as follows;

The use of tarred road by the respondents: At the time of independence, there was only 3 km of tarred road in Botswana. The construction of tarred road to give access to the rural community has been a priority for creating more opportunities for the rural people. In village tarred road was constructed in 2003. A significant proportion (96%) of the respondents indicated that the tarred has been of great use to them as they have seen themselves travelling more often now. For those in agricultural production, they explained how the road has created more opportunities for them, increasing the sales of products. They also indicated minimal use of donkey carts as they just catch buses to go to the fields to check on crops. They showed that nowadays it is easier to get in contact with the agricultural officers. The tarred road also enabled better access to school, health and other community services. Even though they have a clinic in the area, the respondents indicated they usually have to travel to towns to see the doctors, which is now easy with the reliable and affordable transport. Shimokawa and Andersen (2006) shared the same sentiments as they elaborated hoe the infrastructure is an enhancement of the social order which forms the fabric of modern society.

Table 12 : How often do the respondents travel

No of livestock	Cattle	Goats	Sheep
0	14(28)	6(12)	42(84)
1-15	11(22)	23(46)	8(16)
16-30	8(16)	18(36)	0
31-50	13(26)	3(6)	0
Above 50	4(8)	0	0

Source - Field survey, 2013

Changes in income level: The available literature has ample evidence that the rural infrastructure has resulted in income generation for the people in rural areas. Economic infrastructure as a capital stock that provides public goods and services is believed to contribute to production activities, at the same time improving the living conditions of the rural population. One of the objectives of this study was to investigate the impact of economic infrastructure on production and income. For all those with microenterprises,

respondents have indicated rise in productivity and hence growth on their businesses, Table 4.13 below shows that majority (51%) of the study population has experienced great changes in their income levels while some 38 percent experienced moderate changes, since having access to electricity and tarred road. Public investment ensures equal benefits to the rich and the poor as it is non-exclusionary in nature, to the extent that it improves the quality of life for the poor (Nakahigashi and Yoshino, 2000). The rise in income levels automatically influences higher levels of consumption as also people were benefiting from lower prices resulting from fair competition of enterprises. From the observations, the development of infrastructure may be considered a prescription needed for poverty alleviation.

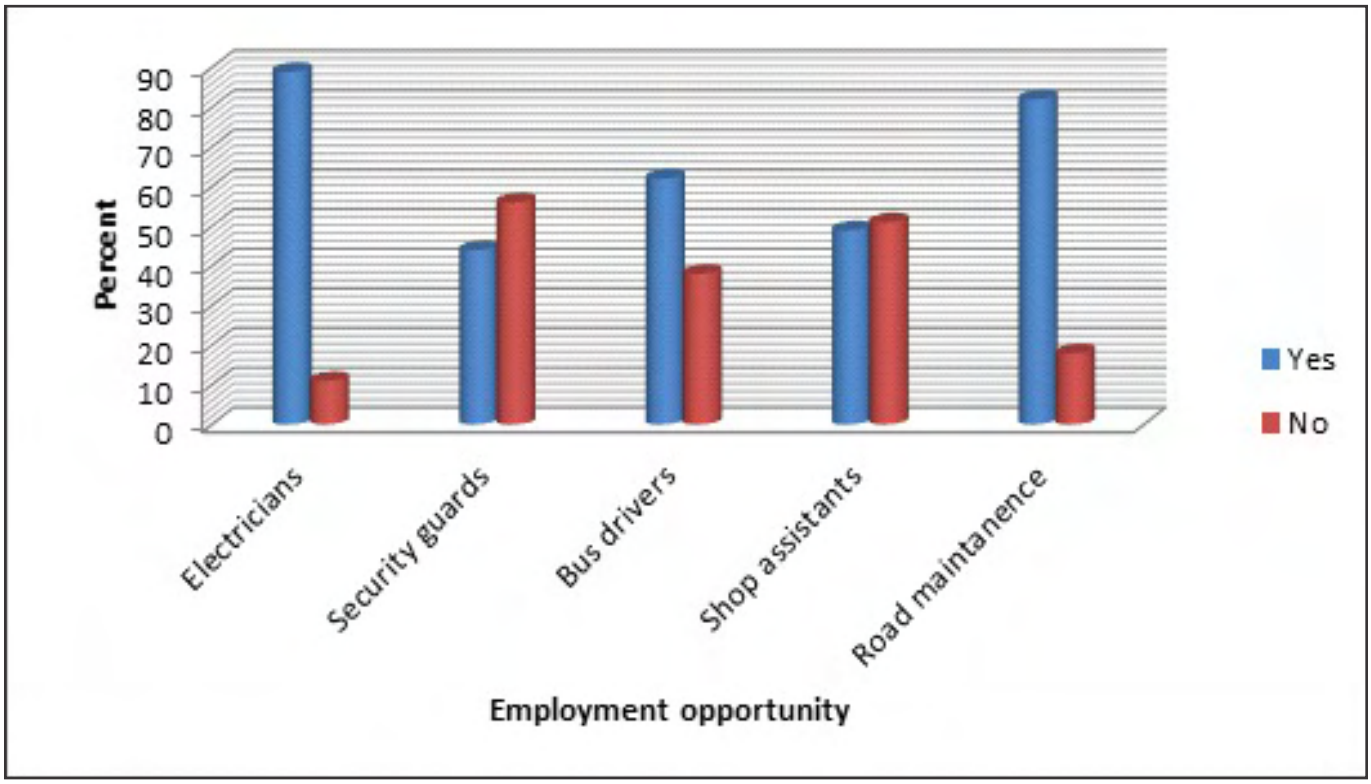
Table 13 : Changes in income level

Degree of changes	Frequency	Percent
No changes	5	11.0
Moderate changes	17	38.0
Great changes	23	51.0
Total	45	100.0

Source : Field survey, 2013

Employment opportunities: As shown in Figure 2 that follows below, when specifically questioned on whether there have been any employment opportunities from developments of infrastructure, all the respondents indicated that they have been created but varied on the ones observed. The bar chart indicates that 89 percent and 82 percent have agreed that electricians and road maintenance opportunities were created respectively. The study population indicated that usually people who wire their houses during electrification connection are the local residents. Also as lots of local people were hired during road construction, even now some people get that chance to sweep and maintain the road. With the developments of infrastructure, more enterprises were established thus creating job opportunities as there are some who are hired as shop assistants. The growth of enterprises also meant need of more assistants in the enterprises. Security guards and bus drivers increased as governmental offices and tarred road were constructed.

Figure 2 : Employment opportunities



Source : Field survey, 2013

Estimation and interpretation of results of the linear regression model

The linear regression model specified in the last section is used to determine the effect of the socio-economic factors on the level of benefiting from economic infrastructure.In the present study, the following model is estimated;

$$\text{Benefits} = \beta_0 + \beta_1 SEX + \beta_2 MAR + \beta_3 AGE + \beta_4 EDU + \beta_5 HS$$

Table : 14 Results of the Regression Analysis on Economic Infrastructure Benefits Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.810	.298		6.073	.000
A3.Sex	.241	.114	.241	2.114	.040**
A4.Marital_status	.101	.054	.258	1.885	.066***
A5.Age_group	.024	.045	.079	.527	0.601
A6.Educational_lev	-.181	.074	-.362	2.461	.018**
A7.2Size_of_famil	-.092	.034	-.439	2.726	.009*

Dependent variable; benefited from access to electricity and tarred road services

R^2 =0.454*statistically significant at 1% **R=0.674**

**** Statistically significant at 5%**

***** Statistically significant at 10%**

Results above are of log linear model, with the dependent variable being the degree of benefiting (entered as a dummy for average benefits). The explanatory variables are the respondent's sex (entered as a dummy for male), the marital status, the age group, educational level and size of his household.

In accordance with the priori expectations, all the estimated coefficients have the expected signs, except that of the age group. Further, this same variable (age group) is insignificant, as well as the marital status (entered as a dummy for single), implying that they do not affect the degree of benefiting from the economic infrastructure. The econometrics results explain that the degree of benefiting from economic infrastructure is influenced by three variables being; sex (entered as a dummy for male), educational level (entered as a dummy for secondary) and the household size.

The coefficient of determination value (R^2= 0.454), which is 45.4 percent of the variation in Y is explained by the significant variables in the model while 54.6 percent is captured by the error term. The value is logical considering the fact that data was collected from cross sectional survey of individual households and it is unusual for this kind of data to have high R^2. As reflected in the R value which is 0.674, about 67 percent of the variation in Y is explained by all the variables in the regression model.

Sex (SEX) is entered as a dummy variable, and has shown to be statistically significant at 5 percent. This model indicates that the variable sex is positively related to having lot of benefits from the economic infrastructure. This implies that more females tend to benefit more from economic infrastructure than men. This is reasonable as usually females are the anchor of every family, using electricity and road services much. The regression coefficient of this variable indicates that a unit increase of a female to the household will make the degree of benefiting increase by 0.241.

Marital status (MAR), a dummy variable is statistically significant at 10 percent level of significance implying that it does have effect on the household economy. It also has the expected positive sign which implies that the married people benefited a lot from access to electricity and road. Basically someone who is married is expected to have a better life, therefore on this model, a unit additional individual getting married,

the greater the benefits.

Age group (AGE) is statistically insignificant at all levels of significance and was found to have unexpected positive sign. This sign implies that as people get older they will benefit more from the economic infrastructure as compared to the younger ones, and this is not in accordance with the priori expectations. According to this model, the variable age group does not affect how much a household benefit from the access to electricity and tarred road. This might have been attributed to the small sample size of 50 households used to run this model, therefore there were no distinct variations in the respondents' ages to effectively depict the significance of the variable.

Educational level (EDU), entered as a dummy variable, is statistically significant at 5 percent level of significance showing that it does impact the degree of benefiting, but does not have the expected positive sign. The positive sign would imply that the more you get learned, the more you enjoy greater benefits from access to electricity and tarred road services. The general belief is that a more educated person will understand better the importance of making use of the economic infrastructure available.

Household size (HS) is statistically significant at all levels of significance and was to have the expected negative sign. The negative sign implies that a household with more members will tend to be characterized by high poverty levels thus benefiting less from the economic infrastructure. The regression coefficient can be interpreted as follows; a unit additional member to the household will lessen the benefits to economic infrastructure.

Table 15 shows the results of the model with the option of educational level; **No formal education** accorded value 0. This did not have any impact on the results as they have not changed at all. This might be as a result of the small sample size that was used during the study.

Table 15 : Results of the model with No Formal Education entered as a dummy

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.810	.298		6.073	.000
A3.Sex	.241	.114	.241	2.114	.040
A4.Marital_status	.101	.054	.258	1.885	.066

A5.Age_group	.024	.045	.079	.527	0.601
A6.Educational_level	-.181	.074	-.362	2.461	.018
A7.2Size_of_family	-.092	.034	-.439	2.726	.009

Dependent variable : benefited from access to electricity and tarred road services

Table 4.16 below indicates the changes in the model after eliminating the variable Age group. Actually there are no significant changes as the variables still have the same signs they had initially as well as level of significance.

Table 16 : Results of the model with age group eliminated

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.888	.257		7.355	.000
A3.Sex	.237	.113	.237	2.103	.041
A4.Marital_status	.110	.050	.281	2.185	.034
A6.Educational_level	-.170	.070	-.340	2.431	.019
A7.2Size_of_family	-.088	.033	-.419	2.699	.010

Dependent variable : benefited from access to electricity and tarred road services

Summary, Conclusion and PolicyRecommendations

The section is divided into three sections; section one has the conclusions from the study, section two represents the policy recommendations and third section gives suggestions for further studies to be made. Public investment has shown to have various effects on the economy. To shed light on the relationship between economic infrastructure and the rural economy, this study focused on its effect on production and income, creation of employment opportunities as well as establishment of microenterprises. Moreover, infrastructure is the capital stock that provides public goods and services, thus believed to benefit everyone equally. To evaluate this effect, the study analyzed data to see whether socio-economic factors are significant factors in determining the extent of benefiting from the tarred road and electricity services.

Firstly, the respondents studied are predominantly females (66%). Majority of the studied population was single and mostly people aged 46 and above responded. Education has shown to be of less concern in rural areas as a significant number of them having gone as far as primary level. Apart from agricultural production, respondents are dependent on remittances and assistance of safety nets as a means of livelihood. Even though

females were dominating in every source of household income, more males indicated to be relying on cash wages. The elderly population relies much on remittances where the youth were relied in cash wages. The study found out that those who have gone further in school are likely to be the ones relying in cash wage as source of income while those who have gone to primary levels rely much on remittances and agricultural production. Electricity developments has improved many people standards, being used for lighting as well as cooking thus reducing the costs on paraffin and candle as well as the time and energy spent collecting firewood. The developments also resulted on people getting electric appliances as many had refrigerators and televisions. Generally electricity and tarred road as public goods have left lot of people better off. The study found out that more micro enterprises were established, creating employment opportunities as well improving consumption levels as competition results in lower prices.

Conclusively, the variables; sex, marital status, educational level and household size indicated a significant impact on the extent of benefiting from economic infrastructure. The model showed that being a female and being in a marriage positively affect the level of benefiting from economic infrastructure hence reduces the levels of poverty. The fact that with a husband or wife you are well off compared to someone who faces the challenges of life alone can incorporate the access to economic infrastructure. The household size also was a significant factor as the model indicated that big families tend to benefit less from the economic infrastructure. Surprisingly the age group was insignificant in determining the level of benefiting and this was thought to be due to small sample size because of time and financial constraint. More importantly, having appropriate infrastructure can be used as a measure to achieve the MDGs and accelerate poverty alleviation in Botswana.

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Slowdown in Indian Economy

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Abstract

Indian economy is experiencing a downward trend in growth for six consecutive quarters and has come down to 4.5 per cent in the second quarter of the 2019-20. This downward trend is being reflected in decline in labour force participation rate and rising unemployment, decline in rural consumption, lower rate of capital formation, falling core sector output, slower growth in exports and advance tax collection much below the target set for this fiscal. This paper attempts to comprehend reasons for this slowdown and efficacy of various policy measures taken by the government by going through views and comments by experts on Indian economy. It has been found that demonetisation, faulty implementation of Goods and Service Tax, crisis in the banking sector and non banking financial companies, decline in aggregate demand and farm distress are important reasons behind the poor performance of the economy. A cut in policy rates by the Reserve Bank of India and a cut in corporate tax by the union government may not be effective in reversing the trend in GDP growth as these steps mainly deal with supply side factors whereas current crisis in the economy is because of demand side factors. Therefore, efforts are needed to revive the demand by higher spending on infrastructure by government and putting more money in the hands of people, especially rural people to boost consumption demand.

Introduction

Economic growth, as measured in terms of rate of increase in Gross Domestic Product (GDP), has always been at the centre of policy making. Since independence efforts have been made through various policy interventions by the government, at centre as well as states, to raise GDP. At the time of independence, India inherited a stagnant and backward economy, dominated by agriculture. India started its development journey with five year plans aiming to increase growth and per capita income and solving chronic problems of poverty and unemployment by diversifying and modernising economy. India undertook massive programmes of industrialisation and development of physical and financial infrastructures. In first thirty year after independence Indian economy grew at a modest rate of 3.5% per annum. During eighties it grew at about 5 per

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cent per annum. In 1991 economic reforms were implemented and growthtrajectory reached as high as 9 per cent in the year and averaged 7 per cent per annum for past several years and consequently termed as second fastest growing economy in the world after China. India's journey from a stagnant and backward economy to a fastest growing developing economy has not been smooth and consistent. It encountered various crises during last seventy years either because of external shocks in terms of high oil prices or domestic factors such as political instability, financial mismanagements by government. Every crisis compelled government to suitably change economic policies.

Indian economy is once again passing through a tough time. Despite having a stable government with strong mandate at the centre, stable external value of rupee, easy global liquidity, improvement in the ease of doing business ranking, growth of the Indian economy declined for six consecutive quarters and has come down to4.5 per cent in second quarter of 2019-20. In Q1 it was 5 percent. This growth is much below the rate required to make Indian economy a five trillion dollar economy by 2024-25. Economic survey 2018-19 assumes the real GDP growth of 8 percent per annum to achieve the target in next five years.

In the present paper, an attempt has been made to comprehend reasons for present slowdown and possible solutions to come out of this situation by surveying views and comments of experts and commentators on Indian economy.

Over the past few months, every economic indicator is pointing towards the slowdown in the economy. It would be appropriate to first mention these warning signs. These are as follows-

1. Indian economy is witnessing ever highest unemployment rate across several rounds of national sample surveys since 1972-73. The periodic labour force survey of 2017-18 shows that 5.8 % males in rural and 7.1% in urban areas and 3.8% of females in rural and 10.8% in urban areas are reportedly remaining unemployed (Editorial EPW,2019). There are also reports mentioning decline in labour force participation ratio, indicating tendencies of withdrawal syndrome on the part of unemployed. A combination of high unemployment followed by a fall in labour force participation is a bigger indication of stress. According to Aacharya (2019) India is experiencing worse employment situation where less than half the working age population is working or seeking jobs. This is India's lowest labour force participation rate on record in G-20 countries. Supply side weaknesses, poor education and rigid laws and regulations are the factors discouraging fresh employment in the formal sector. The employment situation currently prevailing in the economy include 90% or more people struggling to

meet both ends meet in the informal sector, while the organised formal sector of industry and service offers only 10% of jobs. Reddy (2019) reported that for the first time in the history of independent India, there was a net decline in the total employment in the country, from 472.5 million in 2012 to 471.3 million by 2017-18.

2. There has been a decline in rural consumption expenditure by 3.7% during the period 2011-12 to 2017-18 which is again highest in last four decades. According to the unpublished reports of expenditure survey conducted by the National Statistics Office (NSO), the consumer demand fell by 8.8 percent in the rural villages and by 2 percent in the urban areas between July 2017 and June 2018. The survey mentioned that the average monthly spending by a person fell to Rs. 1446 in 2017-18 from Rs. 1501 in 2011-12. The private final consumption expenditure grew at 3.1% during Q1 of the current year compared to 7.3% a year ago. Previously, the private final consumption expenditure growth had similarly contracted to 4.1% in Q4 of 2016-17, the quarter immediately following demonetisation. Moreover, private consumption has fallen at much faster pace of 5.6% between March'18 and June'19 as compared to GDP growth which has fallen by 3 percentage point during the same period (Kishore, 2019).

3. Gross fixed capital formation also exhibited a similar growth trend. It grew by 4% in Q1 of the current year against 13.3 in the previous year and 2% in Q4 of 2016-17. (EPW, 2019). Dev and Goyal (2019) also reported the fact that investment declined from 34% to 29.3% of GDP and household savings fell from about 23% to 19%. Anand and Azad(2019) find irrefutable evidence that there was a severe slowdown in investment during 2014-19 which has fallen from 26.7% in 2004-09 to 13.6%.

4. Output in core sector fell by a record 5.2% in September, 2019 with production in seven of eight industries declining. The sector has 40% weight in Index of Industrial Production (IIP). The year on year growth rate of IIP declined to -4.3 percent in September 2019, almost at an 8 year low in the 2011-12 base year series. The gross value added in manufacturing sector aged up by just0.6% compared to growth of 12.1% during the same period last year (EPW, 2019). Production of capital goods declined by 20.7 percent and infrastructure growth by 6.4 percent against increase by 6.9 percent and 9.5 percent respectively a year ago. Production of consumer durables dropped by 9.9 percent and non durables by 0.4 percent against their respective growth rates of 5.4% and 6.4% registered a year ago.

5. During April-October 2019-20, cumulative exports declined by 2.2% to $186 bn and imports by 8.4% to $280.7 bn from their respective values of $190.2 bn and $306.3 bn registered in the same period last year. (EPW, Current Statistics, 2019).

6. The lower growth will put pressure on government finances. The economic survey presented in July

2019 forecast a 7 percent growth for this fiscal, whereas union budget went ahead with assumption of 12 percent nominal GDP growth. A collapse in nominal GDP to 8 percent in first quarter and further slipped to 6.1 percent in second quarter poses a serious challenge to tax revenue collection. Advance tax collection during the current financial year till mid September grew at a rate of 6 percent significantly deviating from its record of 18 percent a year ago and 14 percent in 2016-17. The data presented in parliament showed that direct tax collection plunged by 17 percent in October. This means tax collection growth slipped further to 4.7 percent against the expected growth of 17 percent for the full year. Performance on GST front is also not encouraging. GST collection per month is below the targeted collection. Lower tax collection will reduce the fiscal space available to the government.

7. Acharya (2019) observed that after June 2019, high frequency indicators such as corporate earnings, the index of industrial production (IIP), purchasing Manager index (PMI), foreign trade data, financial credit numbers, sales of automobiles and cement, all pointing towards a worsening situation. The most damaging evidence of a severe slowdown is decline in energy demand. Conventional electricity generation in October 2019 is 13 percent lower than it was in October 2018. Coal imports lower in October by 12 percent and crude oil imports were lower by 20 percent

8. The global economy has slowed down in recent months as major players like US, China, Germany, France, the UK and Japan are showing clear deceleration. The trade wars take their toll, the decade long American expansion runs out of steam and the threat of a hard Brexit looms large (Acharya, 2019).

The rising unemployment and falling labour force participation rate, falling consumption and investments, and declining core sector production and exports are pointing towards the fact that Indian economy is experiencing contraction in economic activities.

Economic theory related to growth states that for sustained economic growth, a sustained rise in aggregate demand is needed. Aggregate demand has four components, viz., private consumption expenditure, private investment expenditure, government spending and net exports. It is clear from the data mentioned above that there is a situation of demand deficiency as three of the four components of the demand are declining. Now it would be appropriate to review the possible reasons for decline in demand.

Reasons for Decline in Demand

1. Policy Disruptions

Sheel(2018) stated that there was a fair degree of consensus regarding two policy shocks, namely, ill adviseddemonetisation and the hasty manner in which GST was implemented, resulted in overall contraction of economic activity. The third shock economy experienced in terms of crisis in non banking financial companies (NBFC). These three shocks together are held responsible for the decline in private consumption and private investment.

The stated objectives of demonetisation include formalisation of the economy and fighting against corruption in the economy among many others. In a misplaced effort to eliminate corruption, demonetisation ends up in killing the informal economy. India has a very vast informal sector because cost of doing business by following all regulations is very high. The micro and small enterprises, particularly those in trade sector were badly hit by demonetisation since much of their business was cash driven .According to Centre for monitoring Indian economy, an estimated 1.5 million jobs were lost, thousands of units were shut and investment declined in the informal/unorganised sector because of demonetisation (Reddy, 2019). Loss of jobs and income in unorganised sector adversely affected demand for the products produced in formal/ organised corporate sector as there are strong linkages between these two sectors. The decline in demand acted as a disincentive for investment by corporate sector.

Goods and Service tax, a much desired and awaited indirect tax reform, has been implemented in a haste and is proving to be a big economic mess as neither can the new tax system be touted as a good and simple tax nor it has it been able to generate higher revenues for the centre and states, as was expected (Bhattacharya, 2019). The compliance level that GST wanted from Indian traders and small enterprises was too ambitious an expectation. It was a misplaced expectation that players in the unorganised sector would switch over to 100% compliance. As reported by Reddy (2019), there are 1.39 crore GST assesses, but 95 percent of the tax is paid by big units comprising 5 percent of the assesses. Almost 86 percent of units are small enterprises with a turnover of less than 2 crore a year. For these small units there are issues of concern with bifurcation into different categories and vendor-wise bifurcation of inward supplies, and these units struggle with their returns. The core of GST is the invoice matching system which has not been put in place so far.

Crisis in shadow banking has hurt sectors that are dependent upon non banking financial companies (NBFC),

such as small and medium enterprises, consumer lending and real estate developers. Moreover, The Indian banking sector is functioning well below its potential credit creating capacity since 2017 (Anand and Azad, 2019). A high burden of non-performing assets (NPAs) is actually limiting the fresh capacity of lending by public sector banks.

2. Falling consumption

Private consumption, which has been the driving force behind India's economic growth, has been declining as revealed by data given above. Consumption has been adversely affected by squeeze in farm income, growing unemployment, weak consumer sentiments, and slowdown in consumer credit and cash crunch in rural areas. Farm output prices remained stagnant in recent past and decline in real wages resulted in erosion of purchasing power in rural areas and hence caused a decline in demand in the economy. Labour force Survey data for 2017-18 reveal that real wage for regular workers declined by 1.7% in urban area and 0.3% in rural area from 2011-12 level. The sharp rise in inequality is another driver of falling aggregate demand. Wealth share of top 10% increased from 52% in 1992 to 63% in 2012 and their consumption share increased from 27% in 1993-94 to 31% in 2011-12. Anand and Azad (2019) observed that over the years the Indian economy has witnessed increasing concentration of consumption and wealth in urban areas while population share of rural areas has remained stagnant, its consumption and wealth has declined significantly and thus worsening the rural urban gap.

Roy (2019) observed that demand of top income deciles is satiating but those earning less are not able to afford the things that the leading indicators measures. According to him, Indian economy since 1991 has grown largely by meeting consumption of top 10 to 15 percent of population. This has resulted in shifting production structure towards capital intensive goods consumed by the top 15 percent. Market research firm, Nielsen hold slump in rural demand as partly responsible for poor performance of many industries.

3. Decline in Private investment

The most important problem in Indian macroeconomics is decline in private investment (Shah, 2019). Shah observed that the part of aggregate demand that moves the most in Indian macroeconomics is corporate investment. According to him, there were two booms in recent decades, peaking in 1994-95 and 2007-08 and there were low values in 1990s and recent years. To revive growth, it is essential to get back to strong private investment. Gross fixed capital formation has also been adversely affected by demonetisation and the disruption caused by GST. Sonalverma (2019) opined that peaking of financial (credit and housing) cycle and

corporate balance sheet deleveraging cycle have resulted in lower investment demand. Further, decline in corporate profitability and under utilisation of installed capacity have resulted into a cut down in investment. Report of the Taskforce for Drafting New Direct Tax Legislation, compiled aggregate yearly corporate investment for seven years, from 2010-11 to 2016-17, reveal that corporate investment as a share of GDP declined gradually from 15 percent in 2010-11 to 2014-15, but the decline accelerated in 2015-16 to 7.5 percent and fell steeply to 2.5 percent in 2016-17. This decline in corporate investment clearly indicates that the adverse impact of demonetisation is just not restricted to the unorganised sector but also extended to the organised sector.

4. Agriculture Distress

The Annual agriculture growth, as mentioned by Reddy (2019), averaged 4.3 percent during 2010-14, declined to 2.9 percent between 2015 and 2019. Reddy observed a disconnect between agriculture growth and farmer's welfare because growth in farm output is achieved with growing capital cost per unit of farm output .Agriculture prices are under downward pressure because of accumulated buffer stocks of food grains in excess of the norms required for public distribution, depressed global prices and with the expected output at par with the previous year. Agriculture export, which reached a peak of Rs. 3 lakh crore in 2013-14 have been experiencing negative growth in past five years. Agriculture investment as percentage of agriculture GDP declined from 18.2 percent in 2011-12 to 13.8 percent in 2016-17. Agriculture is in a state of surplus supply and is therefore resulting into a further squeeze in farm income and rural demand.

The review of the observations and comments by experts and commentators on Indian economy clearly indicate that recent slowdown in Indian economy is mainly because of the domestic factors such as policy disruptions, farm distress and financial stress resulted in decline in consumption and investment and thereby causing demand deficiency. In the next section policy initiatives undertaken by the central government will be dealt and also what else should have to be done to revive demand and hence growth of the Indian economy.

Policy Responses and their Effectiveness

1. Reduction in Policy rates

Reserve Bank of India has reduced repo rates in five consecutive policy reviews cumulatively by 135 points and in recent review it kept policy rates unchanged and made a downward revision in the forecast for the growth if economy to 5 per cent in this fiscal. The monetary policy route of lowering interest rates has not

helped in reviving the economy. Various data given above and reasons discussed indicate that current slowdown is not the result of the lack of credit but that of deficiency of aggregate demand. Keynesian theory also suggests that monetary policy is the least effective method to revive a failing economy.

2. Reduction In Corporate Tax and abolition of Super rich Tax

Central government in a delayed response to the ongoing crisis in the economy announced a cut in corporate tax rates nearly a month later to presenting full budget in the parliament and claimed it as a big economic reform in direct tax to boost economic growth. Companies now will be taxed at the rate of 22 percent (effective tax rate would be 25.17 per cent including surcharge and cess). Companies getting incorporated in manufacturing sector from October 2019 onwards and starting production by March, 31, 2023 will have an option to paying an effective corporate tax of 17.01 per cent. This step is taken with an aim to boost sentiments in corporate sector and thus boost investment. It is also hailed as a step forward in streamlining and simplifying the direct tax structure and thereby increasing India's attractiveness as an investment destination. However, experts and commentators expressed their reservations regarding effectiveness of this measure to revive economy. Of course, reduction in corporate tax will boost earnings but will not boost investment till companies see clear signs of demand growth. Most economist believe that the cut in corporate tax will further worsen the already worse fiscal situation and fiscal deficit may raise to 4 percent of GDP as growth in revenue is fairly muted and possibility of achieving revenue targets is almost zero. Lower revenue collection will also affect transfer to states and their finances would also come under pressure. To meet the deficit central as well as state governments will resort to higher borrowings and thereby will put pressure on interest rates and will adversely affect activities of private sector. In other words, a high fiscal deficit will impede transmission of cut in policy rates by RBI. Acharya (2019) argued that many of the firms which benefits the most from tax cut already sitting over large cash balances and are unlikely to increase their capital expenditure in the short run rather they will use this money to deleverage and repair their stressed balance sheet.

Policy suggestions

Balanced, continuous and equitable growth can be achieved by ensuring higher productivity of land, labour and capital. Higher productivity can be realised through a truly competitive market and a well placed regulatory, governance and justice system. Competitive market will ensure optimum utilisation of resources and hence would make goods available at low and steady prices which in turn would boost consumption and investment. A well established and functional regulatory, governance and judicial system will encourage businessmen to adopt fair business practices and would raise compliance level.

In the context of current slowdown in the Indian economy there is an urgent need to give a boost to rural demand through higher government spending on schemes like MGNREGA and PM- KisanSammanYojana. The government should come forward with higher spending on infrastructure and housing. The government should complement tax cut with other structural reforms such as land and labour reforms to improve ease of doing business further and enhance India's competitiveness. More importantly, government must come forward with a clear vision and roadmap to achieve the target of making Indian economy a five trillion dollar economy in next five years.

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A Study of Mobile Marketing via SMS on Consumers Preference

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Abstract

SMS marketing is a modern way of marketing. It helps those customers who want to be updated about market scenario via SMS. The shops, banks and other marketing agencies try to keep their customers aware with their promotional strategies. In this study it has been to know customers' attitude towards SMS marketing. The outcomes of the study reveal that male and female think differently, female are more worried about security issues as compared to males and males find SMS being much more useful as compared to females.

1. Introduction

SMS Marketing refers to sending text messages which include promotional campaigns or transactional messages for marketing. The people who give their consent to receive these messages from an organisation will receive messages regarding offers, alerts, andupdates.

SMS is also referred to as texting which is a communication tool is used to send and receive a text message (typically maximum of 160 characters). It is a form of communication which is used for person to person as well as business to personal. used not only for person to person contact but also as a business to personal.
Traditional medium of advertising (newspaper, magazines, TV, radios) has become very obsolete and it restrict the marketers to reach their potential customers. This leads to lack of interaction between advertisers and the ultimate consumers.

SMS advertising is a part of mobile advertising which involves interactions with wireless media to provide customers with time and location services, personalized information that promotes goods, services and thus increases the response to advertising. The use of SMS allows companies to contact customers with ease anywhere and at any point in time.

The increasing adoption of smartphones technologies open up more possibilities for mobile marketing, So it

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is becoming more important to understand the factors that influence consumer's response to mobile marketing, which will help developing mobile communication strategies that are acceptable to consumers. SMS marketing is one of the most useful marketing channels. Some of the reasons are as follows:

- **Omnipresence of Smartphones:** Nearly one-third population of US uses smart phone. SMS via smart phone is the most effective way to reach customers. By inserting a link of the business in the message, we can drive online engagement with your the business

- **Closes the Email Marketing Loop: E**mail and SMS marketing have a lot of similarities in the implementation of their strategy, but they work best together. We can use SMS for sending instant messages, while email is having more detailed content.

- **High Engagement Rates:** On comparing the engagement rates of SMS and email it's been found that 90% of SMS are read within three minutes upon receiving which shows that SMS engagement rate is very high when compared to emails. This is the reason that SMS is very useful for sending critical information with a high success rate.

- **Great for Emerging Markets:** To communicate information in the countries where data is expensive and Wi-Fi are not used much, SMS is a much better channel for communication.
When SMS are received more than 95 percent of SMS are read within three minutes. SMS is the simplest and the most effective way to increase efficiencyof marketing. SMS are used for communicating information in a highly reliable way to keep customers aware with latest development of market arena

2. Review of literature

During recent times mobile marketing is playing a very significant role in the day to day marketing. Various research scholars have made study on this topic and derived following conclusion..

RakeshRoushan, Mita Mehta and ArtiChandani (2015). According to them the number of mobile users has been increased over time and on the other hand, mobile phones have also been evolved which grab the marketers in order to place their products to consumers in better ways. Communication through mobile phones is found to be better than on laptops and PCs.

Strom R, Vendel, M, Bredican, J (2014).The paper describes the existing knowledge of how mobile marketing can increase value for consumers and retailers. It also tells about how mobile marketing creates value for consumers and potentially new behaviours based on mobile devices' uniquely integrated features such as camera, scanners and GPS. It has also increased the understanding of mobile marketing and it's valued outcomes.

Mohammad A,(2013).This paper explains that SMS is a tool for marketers to approach consumers. It also helps to explore customers needs and purchasing behaviour.SMS create opportunities for a marketer to interact to ultimate consumer to promote their products and also to understand the reaction of customers of different age groups towards SMS Marketing.

Mihaela O. (2014).This paper describes that consumers now try to grab more and more information about a product before buying and thus the importance of marketing through SMS acquired growth. Integrated message helps in profitable consumer relationships and thus creates value to the brand.

Yamamoto and Duzgun.(2017). According to this paper marketing through SMS is the most basic and widely used method. It was being applied over 92500 respondents but only 200 replied and this concludes that SMS has no effect for buying.

Tripathi S. (2007). The paper explores consumers' responsiveness to mobile marketing, taking into the impact of demographic factors like age, gender, occupation, etc. it is cross-sectional descriptive design research. It concludes that mobile marketing/advertising does not have any significant impact on the decision of consumers.

Shamout M. (2016). In this paper Retail markets are proving to be the most rapidly growing markets using effective ways of sales promotions tool like coupons, sample, price discount, etc. It was a questionnaire-based study consisting of 160 respondents.

Venkatesh S.(2009). This paper describes the way of communication via mobile medium. It study explains about four main aspects: drivers of mobile device/service adoption, the influence of mobile marketing on customer decision-making, formulation of a mobile marketing strategy, and mobile marketing in the global context.

Leung L (2007), this paper shows the study of impact of influencing college student with the use of SMS. People who were socially anxious and were unwilling-to-communicate face-to-face and were put off by the confusing acronyms used in mobile messaging appeared to be those who spent less time, and not more, using SMS despite the fact that SMS could help overcome student's shyness about bringing up difficult topics with friends. This paper concludes that SMS is a social technology and has become a popular communication tooly for college student

Objectives of research

· To understand consumers attitude and preferences towards SMS.

3. Research methodology

The study has been conducted in South INDORE City.. Total 200 respondents, who were selected by the convenient sampling method, were mobile friendly and they check and use SMS. Out of 200 respondents half of the respondents were males and females. All of them were mobile users

The selected samples were given a set of questionnaire containing 50 statements related to Security, Efficacious, Convenience, Irritation, Trust and Buying Behaviour. They were asked to respond on the basis of Likert Scale – 5 points for Strongly Agree (SA), 4 points for Agree (A), 3 for Neutral (N), 2 for Disagree (DA) and 1 for strongly Disagree (SD).

Econometrics Tools –

To make a comparative analysis of female and male respondents, the following dummy variable regression model has been used.

$Y_i = \beta_0 + \beta_1 D_i + U_i$

Where

Y_i = Opinion regarding statements

D_i = is dummy variable

D_i = 1, is defined for respondents of male customers.

Di = O for female customers'

Thus,

Mean score of Female customers' regarding opinion

$Yi \sum | Yi / Di = 0i | = \beta_0$

Mean score of Male customers' opinion

$Yi \sum | Yi / Di = 1i | = \beta_0 + \beta_1$

+ Means Mean score of male customers' opinion is higher than mean score of female customers' opinion.

- Means mean score of female customers' opinion is higher than mean score of male customers'.

But the magnitude of the distribution

$$\hat{\beta}_1$$

H_0: $\hat{\beta}_1 = 0$

$$t = \hat{\beta}_1 / SE$$

If calculated value t is greater than the relevant table values than $\hat{\beta}_1$ is

Statically significant and accordingly the difference in customers' opinion may be considered as significant.

The paper is organized as follows - Section 1 deals with Introduction, Section 2 presents Review of Literature, Section 3 discusses about adopted Research Methodology, Section 4 provides Empirics followed by Conclusion & Policy Implications in Section 5.

4.Empirics

➢**Security**

S.no.	Statement	Equation
1	I prefer SMS rather than contact via email or post	3.34-0.1X (0.451)
2	I feel SMS is a good communication tool.	3.3+0.14X (0.697)
3	I have a fair amount of knowledge regarding mobile communication through SMS	3.64-0.32X (1.987)
4	I fear my personal data might be misused	3.62-0.08X (2.407)

- In the first statement, there is no difference in opinions of male and female. Mean value of a female is found to be higher than that of male whereas the value of t is statistically insignificant, it means thinking of male and female are alike.
- Male and female customers feel it is a good tool for communication. The outcome of the above statement reflects the same.
- In the third statement, there is difference in opinions of male and female. Mean value of a female is found to be higher than that of male whereas the value of t is statistically insignificant, which interprets that thinking of male and female both are different. Females feel that they get better information through SMS in comparison with other means.
- In the fourth statement, there is difference in opinions of male and female. Mean value of a female is found higher than that of male whereas the value of t is statistically insignificant, which means female has more fear regarding misuse of data..

➢ **Usefulness**

S. No.	Statement	Equation
1	My opinion about usefulness of SMS	2.62+0.36X (2.088)
2	SMS helps me in taking decision regarding purchasing products.	3.16-0.26X (1.054)
3	I feel positive when a company/ shop/bank contacts consumer via SMS	3.36-0.1X (0.496)
4	Receiving Bank SMS is very helpful .	3.00-009X (0.237)
5	SMS is an effective medium for advertisement.	3.6-0.45X (2.04)

- There is a difference in opinion of male and female. Mean value of a female is less than the mean value of male. statistically their opinions have been found statistically significant different .According to this, male customers feel SMS more useful.
- In the second statement, both male and females feel SMS is good and it helps in taking decision .there is no difference in their opinions. Mean value of male is found to be lesser than that of female whereas the value of t is statistically insignificant.
- The third statement, "I feel positive when a company/ shop/bank contacts consumer via SMS." There is no difference in the opinion of male and female. Mean value of female is higher than the mean value

of male and t value is found statistically insignificant. So that it can be said that they both think alike.

- Regarding the fourth statement, Once again there is no difference in the opinion of male and female.
- Regarding the fifth statement, there is difference in the opinion of male and female. Mean value of female is higher than the mean value of male and t value has been found significant. Females think that SMS is an effective medium for advertisement.

➢ **Convenience**

S. No.	Statement	Equation
1	SMS is more convenient than talk on mobile	3.43-0.71X (0.546)
2	I receive details about discount vouchers, gifts, offers running on the date.	3.74-0.02X (3.16)
3	I prefer shopping through SMS if I get attractive deals	3.04-0.16X (0.572)

- In the first statement, there is no difference in the opinions of male and female. Mean value of male is found to be lessr than that of female whereas the value of t is statistically insignificant, which interprets that thinking of male and female both are alike.
- In the second statement, there is difference in opinions of male and female. Mean value of a female is found to be higher than that of male whereas the value of t is statistically significant, which interprets that the opinions of male and female are not alike. Females prefer to get updated through SMS regarding vouchers, gifts and running officers etc.
- Regarding the third statement, there is no difference in the opinion of male and female. Mean value of male is lesser than the mean value of female and t value is found insignificant. So that inference may be drawn that both think alike.

➢ **Irritation**

S. No.	Statement	Equation
1	I tend to delete or ignore SMS	3.48-0.15X (0.713)
2	I consider SMS from companies to be annoying	2.94+0.22X (1.47)
3	SMS through various online websites sometimes irritates me	3.54+0.44X (0.568)
4	Lengthy SMS leads to ignorance	3.46-0.14X (0.875)

- In the first, and fourthstatements, there is no difference in opinions of male and female. Mean value of male is found less than that of female whereas the value of t is statistically insignificant; It means there is no difference in their opinions.
- Similarly, In the second, and thirdstatements, there is no difference in opinions of male and female. Mean value of male is found higher than that of female whereas the value of t is statistically insignificant, It means there is no difference in their opinions.

➢ **Trust**

S. No.	Statement	Equation
1	I prefer receiving SMS from companies	3.45+0.27X (1.070)
2	I prefer advertising/marketing/business SMS.	2.72+0.8X (2.443)
3	I prefer to receive SMS from trusted companies	4-0.1X (0.544)

- In the first statement, there is no difference in opinions of male and female. Mean value of male is found higher than female whereas the value of t is statistically insignificant, which means male and female both think alike regarding the above statement.
- In the second statement, there is a difference in opinions of male and female. Mean value of a female is found lesser than mean value of male whereas the value of t is statistically significant. It means that male prefer to use SMS for marketing in advertisement of their business.
- In the third statement, there is no difference in opinions of male and female. Mean value of a female is higher than that of male whereas the value of t is statistically insignificant. It means both male and female prefer to get SMS from trusted companies.

➢ **Buying behaviour**

S. No.	Statement	Equation
1	I prefer to purchase product or service advertised through SMS	1.96-0.34X (0.725)
2	I participate in contest and offers through SMS	3.32+0.02X (0.345)

- In the first statement, there is no difference in opinions of male and female. Mean value of a female is higher than that of male whereas the value of t is statistically insignificant. Hence it can be concluded that male and female both prefer to purchase product and services through SMS.
- Regarding the second statement, there is no difference in the opinion of male and female. Mean value of male is higher than the mean value of female and t value is found insignificant. This inference may be drawn, as they both think alike. In other words it can be said that they participate in contest and offers through SMS.

5.**Conclusion and policy implication**

The outcomes of the study reveal that male and female think differently, female are more worried about security issues as compared to males. Males find SMS being much more useful as compared to females. SMS are found more CONVINIENT by both male and females. Both male and female prefer buying commodities with the help of SMS.. From the above conclusion it can be said SMS is a very popular communicative tool. The agencies, banks and corporate world should use this tool in customised manner.

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Youth in India : Strength or Challenge for Economic Development

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Abstract

The economic development of a nation lies in the development of its youth. Youth are the huge reservoir of energy and proved to be the greatest asset for development agenda, if they are harnessed intelligently for the same. A country's ability and potential for growth is determined by the size of its youth population. According to Social Statistical Division, CSO (2017) India has the largest share of young population and will continue to have the same at least for next twenty years. There are many expectations from this population but it is the time to think whether their expectations from the society and economy are fulfilled. A study of Indian Council of Medical Research (2018) shows that in India suicide is the leading cause of death in the 15-39 year age group with 37 per cent of the total global suicide deaths among women coming from the country. We reap what we sow. The present research article tries to analyse the status of youth development in India by some indicators like education, health both mental and physical and employment. The analyses shows that today the biggest challenge in Indian Economy is to cater the need of its biggest strength, the Young age population India. It will have to work hard to provide adequate opportunities to channelize the energy of youth in the right direction otherwise the constructive power of youth will convert into the destructive one. In academia and politics youth civic engagement has got prominence in many parts of the world. It is assumed that young people if involved in and connected to society are less likely to engage in risky behaviour and violence and will likely to stay engaged as they grow older. The same need in India is also felt at this time to change the view of adults towards the efficacy of youth and their needs.

1. **Introduction** The economic development of a nation lies in the development of its youth. Youth are the huge reservoir of energy and proved to be the greatest asset for development agenda, if they are harnessed intelligently for the same. A country's ability and potential for growth is determined by the size of its youth population. According to Social Statistical Division, CSO (2017) India has the largest share of young population and will continue to have the same at least for next twenty years. India's advantage in young population is also evident when it is compared with other Asian Countries. India

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is seen to remain younger longer than China and Indonesia, the two major countries other than India which determine the demographic features of Asia. As per India's Census 2011, Youth (15-24 years) in India constitutes 27.5 per cent of India's total population. India is expected to have 26.1 per cent share of youth in total population by 2020. The share of persons aged 15-34 reached its maximum of 35.11 per cent in the year 2010. China in contrast is seen to have reached the highest share of 15-34 years aged people in the year l990 at 38.28 per cent and is projected to have the share of youth force shrinking to 27.62 per cent by the year 2020. Thus it is observed that India has the relative advantage at present over other countries in terms of distribution of youth population and this is the biggest strength of India today.

Only bigger size of young population cannot ensure the contribution of it into the development of a country until it is made productive. In order to create a productive youth workforce, it is essential that the youth of the country have access to the right set of tools and opportunities to make a sustainable contribution. The youth must have equitable access to high quality education and be able to develop the necessary skills that are required by the labour market to ensure that they are gainfully employed. To achieve their full potential, it is also necessary that they should have good mental and physical health and make healthy and balanced lifestyle choices. Inculcating of social values in them, their participation and civic engagements are also required to make them strong and feel themselves useful for the society.

In this respect India's biggest strength has become the biggest challenge for it. A study of Indian Council of Medical Research (2018) shows that in India suicide is the leading cause of death in the 15-39 year age group with 37 per cent of the total global suicide deaths among women coming from the country. Similarly the leading news paper of Rajasthan reported the suicide case of four friends in Alwar due to unemployment (Rajasthan Patrika, Nov. 22nd 2018). The young population is a big hope for India and there are many expectations from this segment of population but it is the time to think whether the nation is catering the need of them and their expectations from the society and economy are fulfilled. The present research paper moves around this question and tries to analyse the status of youth development in India with some indicators like level of education, health, employment etc. so that it can be explored whether we will be able to reap the benefits from our strength or it will remain only the challenge.

2. Methods and Concept

This research is of descriptive type where the status of youth development in India is discussed. For this the secondary data on variables like education, health, employment, crime etc. are collected from authentic reports of Ministry of Youth Affairs and Sports, CSO, NFHS-4 etc.

· Concept of the 'Youth'

Youth is a more fluid category than a fixed age-group. 'Youth' is often indicated as a person between the age where he/she leaves compulsory education, and the age at which he or she finds his/her first employment (Ministry of Youth Affairs, 2014). Youth age-group is generally defined differently by different countries, agencies and by same agency in different contexts. United Nations defines 'youth' as persons between 15 and 24 years of age. In the National Youth Policy-2003, 'youth' was defined as a person of age between 13-35 years, but in the National Youth Policy-2014 document the youth age-group is defined as 15-29 years. For the purpose of this study youth age group is taken as defined in NYP-2014.

3. Demographic Features of Youth in India

As per India's Census, the total youth population increased from 168 million in 1971 to 422 million in 2011. The share of youth population in total population has been continuously increasing from the level of 30.6 per cent in 1971 to 34.8 per cent in 2011 (Table 1). After this, it is projected to decline and their share will come down to 31.8 per cent by 2031.The percentage of male youth population to total male population follow the pattern of overall youth and was also on a steady rise till 2011(Figure 1). But the share of female youths to total female showed a slight decrease in 2001 which might have resulted due to declining sex ratio during this period.

Table 1 : Youth Population (15-34 years) in India

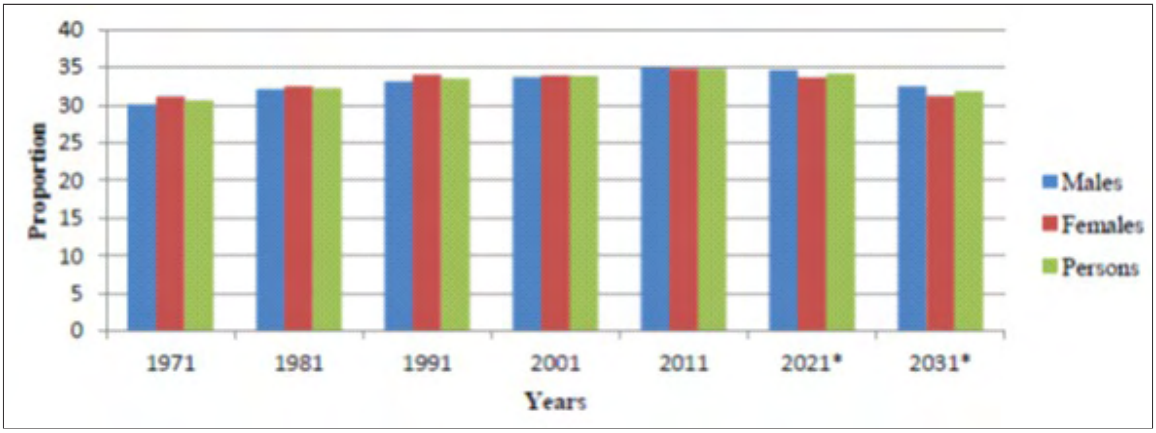
Year	Population (in 000's)	Percentage to total Population	Sex Ratio
1971	167637	30.6	961
1981	220669	32.2	945
1991	281152	33.5	950
2001	347677 (273402#)	33.8(26.6#)	940 (928#)
2011	421959 (333365#)	34.8(27.5#)	939 (928#)
2021*	479406 (366885#)	34.1(26.1#)	904 (898#)
2031*	490423 (369655#)	31.8(24.0#)	898 (897#)

** Population projections by World Bank*

 # Figures in ( ) relates to age group 15-29 years (Youth as defined in National youth Policy 2014).

Source: Youth in India, 2017

Figure 1: Proportion of Youth (15-34 years) to Total Population



Source : Registrar General of India (RGI)

According to 'World Population Prospects: The 2015 revision' India has the world's highest number of persons of 10 to 24 years of age, with 242 million young people (UN Population Division, 2015). India is expected to have the share of youth (15-34 Years) in total population at around 32.3 per cent in 2030. The share reached its maximum in the year 2010. China in contrast is seen to have reached the highest share in the year l990 at 38.3 per cent and is projected to have the share of youth force shrinking to 22.3per cent by the year 2030 (Table 2). Thus India have large advantage of young population as compared to some other Asian Nations like China, Japan, Thailand and Vietnam. But the developing nations Pakistan, Bangladesh and Philippines are also going to give a big challenge to India in terms of size of young population.

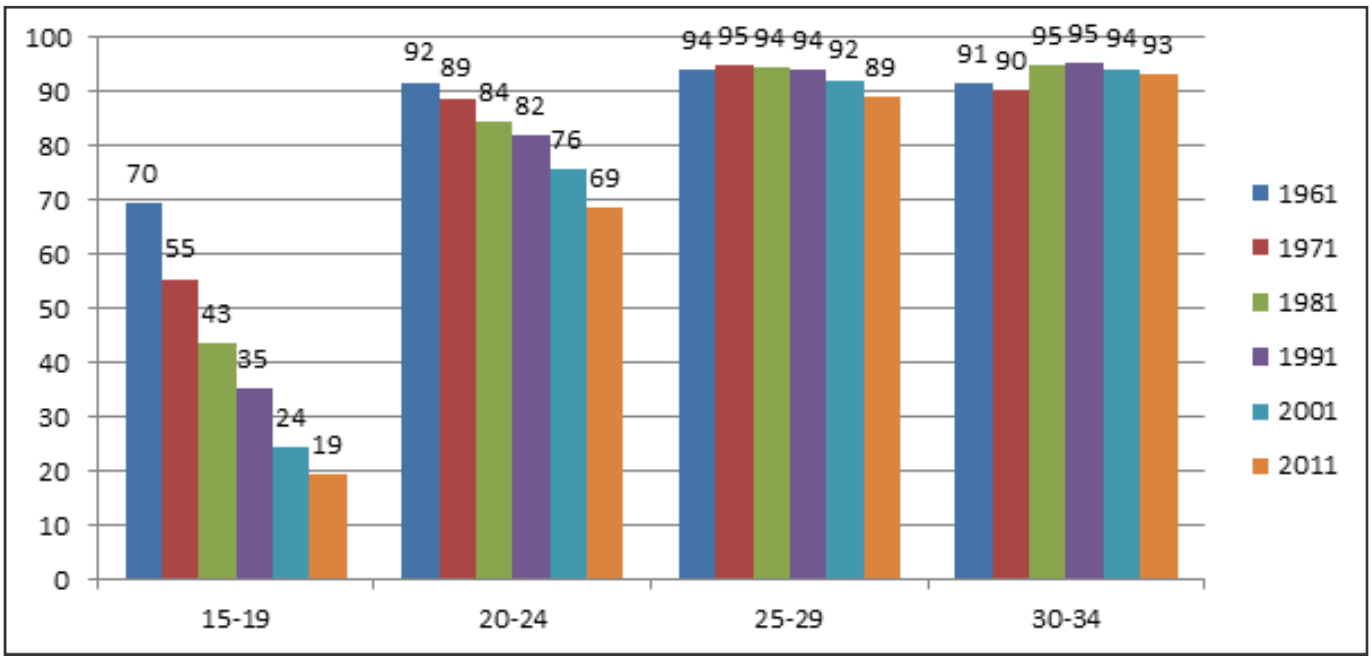
Table 2 : Share of Youth Population (15-34 Years), in Major Countries of Asia; (1970-2030)(in per cent)

Country	1970	1980	1990	2000	2010	2020	2030
Indonesia	30.90	32.96	36.83	37.80	34.54	31.88	31.21
Pakistan	31.18	31.04	32.41	33.35	36.22	35.11	33.95
Japan	35.91	30.80	28.16	27.32	22.47	20.69	20.10
Bangladesh	30.56	30.05	34.69	36.89	37.20	36.08	32.98
Philippines	32.37	35.23	35.55	34.90	34.80	34.70	33.31
Thailand	31.60	35.19	38.29	34.67	29.91	25.81	22.96
Vietnam	26.81	33.07	36.46	36.53	37.22	31.70	26.84
Malaysia	31.95	36.57	36.02	34.74	37.43	35.17	29.24
China	31.69	35.37	38.28	35.26	32.25	27.83	22.31
Asia	31.77	34.12	35.84	34.98	33.93	31.54	28.63
India	**32.20**	**33.87**	**34.25**	**34.73**	**35.11**	**34.46**	**32.26**

Source: World Population Prospects: The 2015 revision Population Database, United Nations Population Division

Though the declining sex ratio of young population in India (Table 1) is a matter of concern but it is to appreciate that percentage of married women in the age group 15-19 years has come down drastically from 69.5 in 1961 to 19.5 in 2011 showing a welcome shift in the level of married women in younger age groups. The highest proportion of women married continued to be in the age group 30-34 (93 per cent) in the year 2011 also (Figure 2).

Figure 2 : Percentage of Married Females to All Females



Source: Office of the Registrar General, India

4. Youth Development in India

The development of Youth in any nation can be determined with the help of level of education, health, employment and their civic engagements. On these parameters the development of youth in India is analysed in this section of the paper.

4.1 Literacy and Education attainment by Youth

Literacy rate is one of the most important indicators of social development and is closely related to the socio economic growth of any country. In the age group of young population though the percentage of literates has increased since 1991 still it is below 90 percent and this percentage decreases as we move towards the higher age group (Table 3).

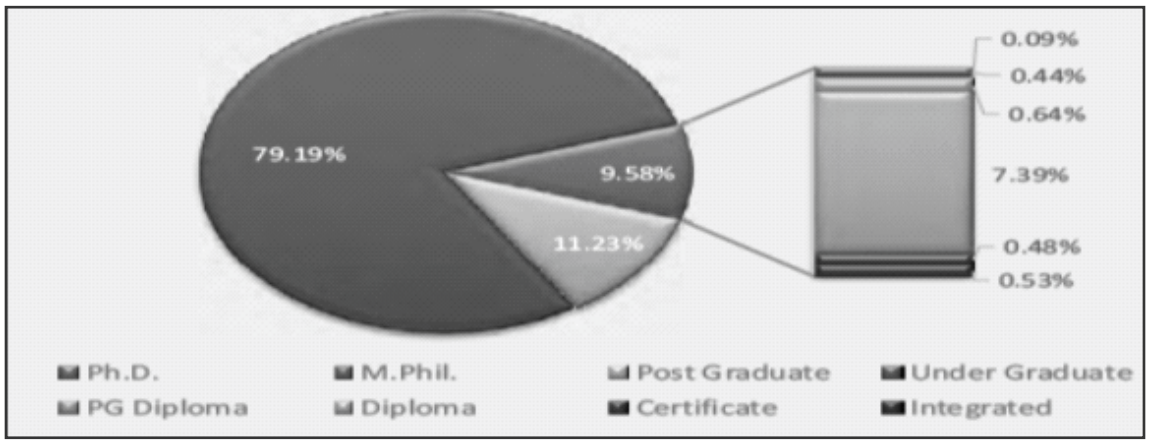
Table 3 : Percentage of Literate by age and Sex

	1991	2001	2011						
	Male	Female	Person	Male	Female	Person	Male	Female	Person
5-9	62.6	51	56.9	74.1	67.7	71	83.2	81.2	82.2
10-14	77	59.7	68.8	86	77	81.7	92.2	90	91.1
15-19	75.3	54.9	65.8	85	72.7	79.3	91.2	86.2	**88.8**
20-24	71.5	43.8	57.8	83.3	62.5	73.2	88.8	77.3	**83.2**
25-34	64.7	36.6	50.8	77.1	52	64.5	83.8	66.6	**75.3**

Source : Census of India-1991, 2001 and 2011

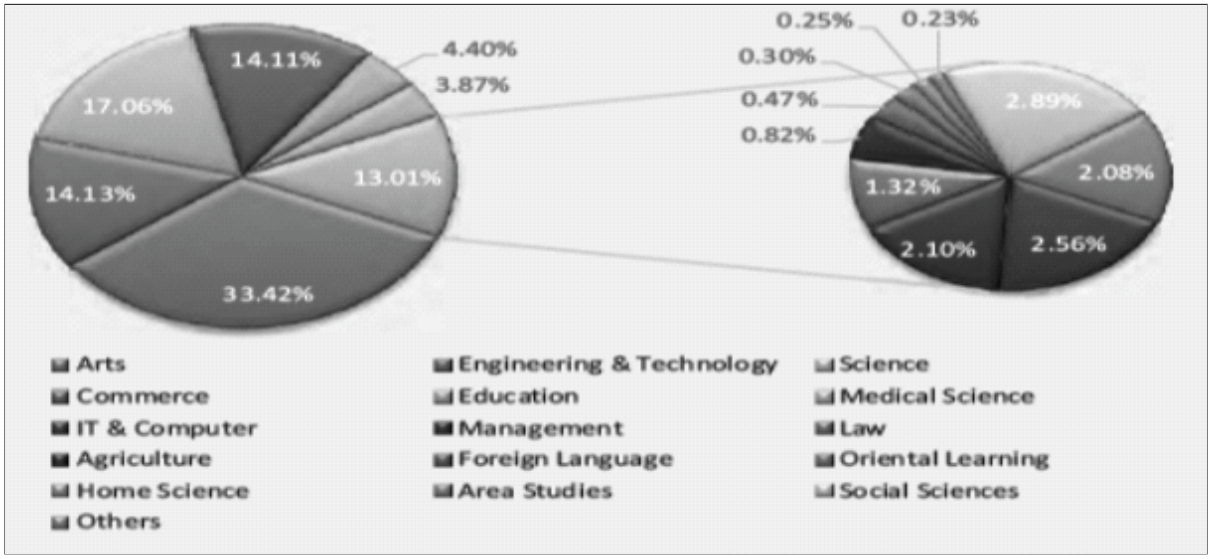
Out of the literate only 8 per cent have education at graduate and above level. Total enrollment in higher education has been estimated to be 36.6 million. Girls constitute 47.6per cent of the total enrolment. Gross Enrolment Ratio (GER) in Higher education in India is 25.8 per cent, which is calculated for 18-23 years of age group. GER for male population is 26.3 per cent and for females, it is 25.4 per cent. About 79.2 per cent of the students are enrolled in Undergraduate level programme. 1, 61,412 students are enrolled in Ph.D. that is less than 0.5 per cent of the total student enrolment. Maximum numbers of Students are enrolled in B.A. programme followed by B.Sc. and B.Com. programmes. At Undergraduate level the highest number (36.4 per cent) of students are enrolled in Arts/Humanities/Social Sciences courses followed by Science (17.1 per cent), Engineering and Technology (14.1 per cent) and Commerce (14.1 per cent) (figure 4). At Ph.D. level, maximum number of students are enrolled in Science stream followed by Engineering and Technology. On the other hand at Post Graduate level maximum students are enrolled in Social Science stream and Management comes at number two.

Figure 3 : Student Enrolment by Levels



Source : AISHE -2017-18

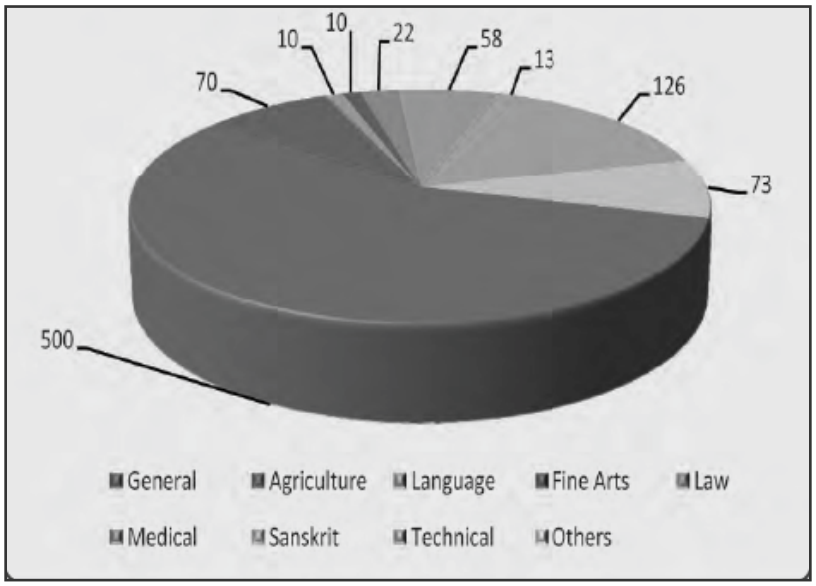
Figure 4: Stream-wise Distribution of Under Graduate Enrolment



Source : AISHE -2017-18

The institution available for providing education are also very limited. Only 3.6 per cent Colleges run Ph.D. programme and 36.7 per cent Colleges run Post Graduate Level programmes. Most of higher education institutions are of general nature. There are 500 General, 126 Technical, 70 Agriculture & Allied, 58 Medical, 22 Law, 13Sanskrit and 10 Language Universities and rest 73 Universities are of other Categories (figure 5).

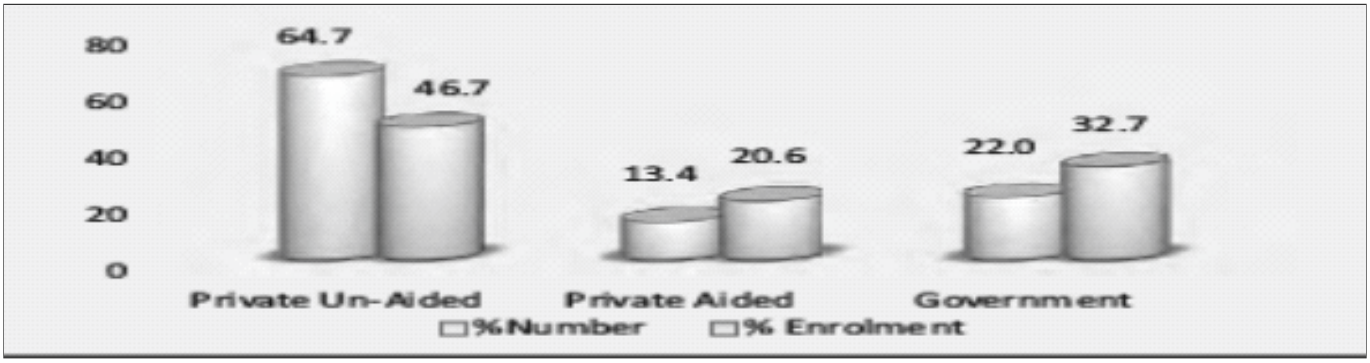
Figure 5 : Distribution of Universities as per Specialisation



Source : AISHE -2017-18

There are more than 78 per cent colleges running in Private sector including both aided and unaided and it caters 67.3 per cent of the total enrolment (figure 6). The fee structure is higher at private institutions, so it can be concluded that majority of students are bound to pay high fees for their education.

Figure 6 : Enrolment in Private & Government Colleges



Source: AISHE -2017-18

Professional education is defined as higher education programmes that are designed for learners to acquire the knowledge, skills and competencies specific for a particular occupation. The enrolment in Professional courses in India is very low and it is even lower than the academic course enrolment.

Table 4 : Enrolment in Professional Courses (in Lakhs)

Level	Management	Academic	Professional					
		Male	Female	Total	Male	Female	Total
Under Graduate	Government	49.89	49.61	99.50	12.05	8.61	20.66
	Government-Aided	2.05	24.38	44.91	4.41	3.86	8.27
	Private	31.12	32.18	63.31	38.02	24.36	62.38
Post Graduate	Government	7.49	10.51	18.01	3.94	3.10	7.08
	Government-Aided	1.57	2.94	4.51	0.55	0.75	1.31
	Private	1.58	2.55	4.13	5.28	4.53	9.82

Source: AISHE -2017-18

Thus India is lacking in providing quality education to its youth for make them productive and helpful. The majority of young population which is enrolled in higher education in India are doing degrees for the name sake. Very few are getting enrolled in researches and professional courses. Employers whether they are from industries, companies or other institutions often comment that our graduates are not fit for jobs. CP Gurnani, CEO & MD of Tech Mahindra, has said that 94% of engineering graduated were not fit for hiring. "The top 10 IT companies take only 6% of the engineering graduates. What happens to the remaining 94%?" he said in an interview to Times of India (ET Online, Jun 04, 2018). A McKinsey's report had flagged the issue more than a decade ago when it said just a quarter of engineers in India were actually employable.

4.2 Labour Force Participation and Unemployment:

The labour force participation rate (LFPR) is defined as the number of persons in the labour force per 100 persons. According to NSSO 68th round survey (2011-12), the labour force participation rate for youth is lower than the other age group in working age population both in rural and urban areas (table 5) and if we compare it to NSSO previous surveys it is declining . According to this survey, considering usual status, unemployment rate among the youth (15-29 years) was much higher as compared to that in the overall population (table 6). It could have happen because of the increasing interest of youth in acquiring higher education and the population which are searching for jobs may not fit for jobs as explained in section 4.1. For all age group LFPR is significantly lower for females than for males in both rural and urban areas and unemployment rate is higher.

Table 5 : Labour Force Participation Rates by age (in percent)

	Male	Female								
	15-29	30-44	45-59	60+	Total	15-29	30-44	45-59	60+	Total
Urban	59.9	98.80	94.10	36.00	56.00	15.90	23.40	19.20	6.70	13.40
Rural	63.10	98.90	96.60	63.90	54.70	18.30	33.40	33.90	15.90	18.10

Source : July 2011 - June 2012 Round of NSSO

Table 6 : Unemployment Rates by age group

	Male	Female								
	15-29	30-44	45-59	60+	Total	15-29	30-44	45-59	60+	Total
Urban	8.9	0.80	0.40	0.40	3.20	15.80	2.70	0.40	0.00	6.70
Rural	6.1	0.4	0.1	0.2	2.2	7.7	1.2	0.7	0.6	2.8

Source : July 2011 - June 2012 Round of NSSO

If we are not providing them the quality education than it is two sided loss for our economy. One is they are not becoming the part of labour market today and another thing is they are not going to contribute much in future due to low quality or less skill.

4.3 Level of Health of Youth in India

Youth, is a period of major physical, physiological, psychological, and behavioural changes with changing patterns of social interactions and relationships. Youth is the window of opportunity that sets the stage for a healthy and productive adulthood and to reduce the likelihood of health problems in later years but it is also an age of impulsivity accompanied by vulnerability, influenced by peer groups and media and so youth are more prone to health risks. Nutritional disorders (both malnutrition and over-nutrition), tobacco use, harmful alcohol use, other substance use, high risk sexual behaviours, stress, common mental disorders, and injuries (road traffic injuries, suicides, violence of different types) specifically affect this population and have long lasting impact.

In India data of high infant mortality and high malnutrition among child is an indirect indicator of poor health condition of youth also. According to NFHS 4 survey the child mortality (under the age of five), infant mortality and neonatal mortality rates in India are 50, 41 and 30 (deaths per 1000 live births) which are very high This indicates that one in 20 children in India die before their fifth birthday. More than four-fifths (82per cent) of these deaths occur during infancy.

If we talk about the malnutrition among children it is to be noted that thirty-eight percent of children under age five years are stunted (short for their age), 21 percent are wasted (thin for their height), 36 percent are underweight (thin for their age) and 2 percent are overweight (heavy for their height) (Figure 7a). Figure 7b explains that poor condition of malnutrition prevails in adults also. Twenty-three percent of women and 20 percent of men of age 15-49 are thin. Almost the same percentage are overweight or obese (21per cent of women and 19 per cent of men).While the 48.6 percent of children under age five are anaemic, fifty-three percent of women and 23 percent of men age 15-49 have anaemia (NFHS 4).

Figure 7a: Trends in Nutritional Status of Children

(Percentage of children age 0-59 months)

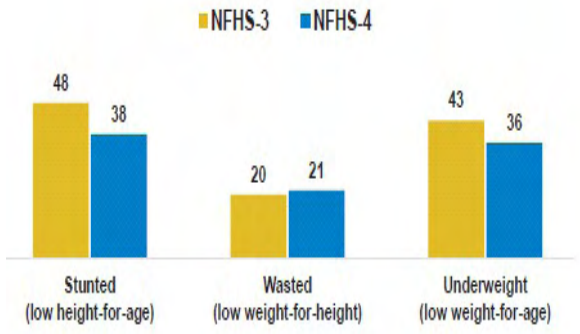
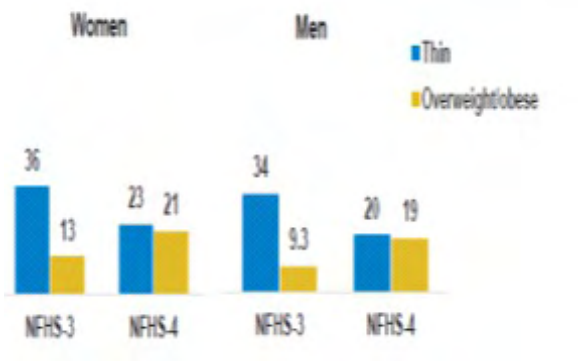


Figure 7b: Trends in Nutritional Status of Adult

(Percentage of women and men age 15-49)



Note: Nutritional status estimates are based on the 2006 WHO International Reference Population

Source : NFHS-4 Report

The above information explains that level of physical health is also not good of young population. India is home to an estimated 57 million people (18 percent of the global estimate) who are affected by depression as per World Health Organisation (WHO). The proportion of youth within this chunk of patients is increasing by the day. Studies have shown a steady rise in mental health disorders such as depression, anxiety disorders, and substance abuse disorders among the youngsters. They face isolation despite many social media friends. More time is spent on social media sites as compared to the time devoted to actual real-time friends and relationships. The stress of performance in education, as well as work, is taking a toll on the mental health of youth. Young people are not well equipped to handle this stress. Adolescents, at the cusp of adulthood, go through a lot of changes not just hormonal but emotional as well. Our education system still lacks a proper mechanism to provide counselling and guidance to students about the mental health issues they go through. To top it all, adolescents also have to endure the pressure of Board exams in India, thus adding in to the stress and anxiety they have to face. According to the 'Mental Health Status of Adolescents in South-East Asia: Evidence for Action', a report published by WHO in April 2017, in 2007, 5.8 per cent population of India was in the age group of 13-15. The report suggested that about 25 per cent adolescents in the country reported

being depressed for 2 weeks or more in a row. The percentage of adolescents who reported being in anxiety was 8 per cent. The 8 per cent felt lonely most of the times or always and a 10 per cent of the surveyed students had no friends. The 11 per cent of those surveyed also admitted to substance abuse. Constant stress can lead to a variety of disorders, including various non-communicable diseases such as hypertension and Ischemic heart disease. Even the higher level of stress leads to suicides.

4.3.1 Incidences of Suicide in Young Population

Every year, more than 1, 00,000 people commit suicide in our country. There are various known causes of suicides like family problems, financial distress, professional problems, illness etc. National Crime Records Bureau collects data on suicides from police recorded suicides cases. Youth (18 and above- below 30 years) is one of the vulnerable groups resorting to suicides with 33 per cent share of total suicides. 'Family problems' and 'illness' were the major causes of suicides in 2015, which accounted for 28 per cent and 16 per cent of total suicides. Out of the overall suicide victims 68.5 per cent were males and 31.5 per cent were females. Table 7 explains the incidence and reasons of suicide.

Table 7 : Incidence and Reasons of Suicide

Reasons for Suicides	Age Group		
	Below 18	18 -29	All Age group
Bankruptcy or Indebtedness	0.16	1.76	3.26
Marriage Related Issues	2.20	8.22	4.80
Failure in Examination	15.27	2.70	1.98
Other Family Problems	24.01	28.81	27.64
Illness (Total)	10.15	11.86	15.85
Insanity/Mental Illness Other	5.86	5.63	6.29
Prolonged Illness	4.00	5.62	8.33
Drug Abuse/Addiction	0.72	2.22	2.75
Fall in Social Reputation	0.34	0.58	0.82
Love Affairs	9.14	6.11	3.35
Poverty	0.64	1.08	1.27
Unemployment	1.11	2.57	2.04
Professional/Career Problem	0.45	1.15	1.19
Causes Not Known	14.37	12.11	12.13
Other Causes	21.45	20.84	22.93
Total	100.00 (8908)	100.00 (43847)	100.00 (133616)

* Total includes transgender also

Source: National Crime Records Bureau, M/o Home Affairs

Hence, it is important to tackle mental fitness issues amongst the younger generation at the earliest. The youth are the pillars of productivity of our nation, and if these are weak, then the stability of the structure is inevitable to be affected. Hence a mentally and physically fit youth population is one of the most important pre-requisites for the productivity and progress of a nation.

4.4 Crime and Youth

Youth are a source of immense energy and drive. If not harnessed and moulded properly, this energy not only goes waste, but at times becomes destructive to society. Involvement of youth in crimes and social abuse like drug addiction etc. is the consequence of this failure. Although a majority of crimes are committed by youth by virtue of their large physical energy, there is no separate statistics for age wise segregation of criminals involved in serious crimes like murder, dacoit, theft etc.

As per National Crime Record Bureau, a total of 41,385 juveniles (a person below the age of 18 year) were apprehended during 2015 out of which 40,468 were boys and 917 were girls. The percentage of girls to total juveniles is found to be following a decreasing trend from 2011 and has reduced to 2.2per cent in 2015. Details of gender-wise juveniles apprehended under IPC (Indian Penal Code) and SLL (Special and Local Laws) crimes are presented in table 8.

Table 8 : Juvenile Delinquency

Year	Delinquents (IPC+SLL) (in thousands)	Rateof Incidenceof Crimeper Lakh population		
	Boys	Girls	Total	
2001	31.3	2.3	3.6	1.6
2005	30.6	2.1	2.7	3
2010	28.8	1.5	0.3	2.6
2015	40.5	0.9	1.4	3.3

Source: Youth in India- 2017

Youth not only become the source of crime if not taken care of properly but they also become the easy targets of criminals. It is unfortunate that incidences of rape in India against female and more so against minors are rising steadily. There has been demand to make the law more stringent in case of rape. The criminal law was amended in 2013 after the notorious Nirbhaya incident of rape (2012), providing for enhanced punishment for

convicts, repeat offenders and also making provision of punishment for other offences like eve-teasing, stalking, voyeurism etc. which were otherwise not covered earlier. According to NCB report an increasing trend in the incidence of rape has been observed during the periods 2011 to 2014. A total of 34,651 cases of rape under section 376 IPC were registered during 2015 (excluding cases under the Protection of Children from Sexual Offences (POCSO Act, 2012) (Youth in India-2017). Age group wise number of victims of total rape cases registered shows that majority of victims belong to the age group of 18 to 30 years (Table 9).

Table 9 : Victims of Rape by Age Group

Year	No. of cases Reported	Age of Victim (Years)						
		Below 6 years	6 yrs& Above - Below 12 years	12 yrs& Above - Below 16 years	16 yrs& Above - Below 18 years	18 yrs& Above - Below 30 years	30 yrs& Above	All
2014*	37413	547	1491	5635	6862	16520	6626	37681
2015	34651	451	1151	4244	5547	16966	6412	34771

** Figures of rape (Section 376 IPC) also includes figures of POCSO Act, 2012 as furnished by Tamil Nadu and Meghalaya*

Source: National Crime Records Bureau, M/o Home Affairs, GOI

5. Conclusion and Suggestions

The large size of young population provides opportunities as the increasing number of young citizens will lead to higher savings, higher investment and higher growth rate in terms of GDP. However quantity itself is not the surety that demographic dividend will be proved as a boon for a country it could be a curse in case education and health system is not good enough to give proper value addition to the youth and employment opportunities are not being created to absorb them productively. In India it is now more the matter of quality of youth instead of their quantity. We are already reaping the quantitative benefits of young population in terms of increased labour force but what is its employability and how much it is going to contribute in our growth will decide whether it will be proved as the biggest strength. The analysis of current statistics of education, health and employment show that India has not been able to provide quality inputs for the youth development so the larger size of this population is becoming the biggest challenge for India. Increased number of suicide cases and crimes among the youth is an alarm that we should give due concern to our youth in families as well as in community engagements. Actually we are expecting a lot from them instead of fulfilling their requirements of quality life. To make the youth productive, constructive, healthy, well

educated and highly skilled is the biggest priority of India. Policy changes for qualitative human capital formation are vital in India to create and sustain demographic dividend. A failure to act on these issues could have a damaging effect on future prospects of India, after two to three decade from now when old-age dependency ratio will increase to overwhelm available resources. It is in the nation's interest to reap this dividend as much and as early as possible.

We need an education system that has a quantitative as well as a qualitative component – one that can reverse the trend of churning out graduates with poor employability levels.

The Indian higher education sector can flourish if regulatory bodies redefine and reinvent their policies to nurture quality and promote autonomy and accountability. Private universities should pay attention to their responsibility towards society and public universities should generate funding from the industry based on the strength of the knowledge that they create as if they are a private university.

India has to focus on research, skill-building and awarding academic equivalence to vocational qualifications as well as reorienting millions of degree holders so that industry can get manpower that is trained, creative and matches the best productivity.

The recent history of the Chinese health care system offers two particular lessons for Indian health policymakers first is increased spending on health and other is better control of communicable diseases and improvements in maternal and infant health. Cooperative medical care system and public awareness programmes for health and nutritional security on the line of China can be adopted in India for better health system.

India should follow other countries for improving the quality but not with the closed eyes rather it should rationally adopt the policy changes which are suitable to its economic environment and appropriate for the welfare of its population.

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The Impact of Marketing Strategies on Profitability of Small Shops in Sitabuldi, Nagpur

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**Dr. Milind Barhate

Introduction

A marketing strategy is a method by which a firm or organization tries to reach its target Markets. First step of Marketing strategy is market research, in which need, attitude of Customer and competitors' products are assessed and continues through advertising, Promotion, distribution and where applicable, customer servicing, packaging, sales and Distribution. Major focus of marketing strategy must be delivering greater value to Customers as well as firm at a lesser cost. However, decision makers are facing issues like quantifying the return on investment from marketing expenditure on activities suchas advertising, promotion and distribution. In order to measure efficacy of marketing strategy, a business has to break down marketing function into basic parts, along with a mechanism to analyse the interaction between those parts. By doing this, decision-makers will finally be in a position to relate marketing expenses to shareholder value and to understand how to tie marketing initiatives back into the value created for the company. Decision-makers will be able to understand the internal motives that drive the marketing value of the business. The manipulation of the marketing variables namely price variation and promotion, quality, packaging, product differentiation, research, advertising and place will yield increased returns for firms.

Considering Nagpur,the trading enivernment here has changed dramatically in recent past.Therehas been significant social and economic change which has changed the ability, perception and behaviour of consumers with regard to shopping. The needs anddesires of consumers have changed, although there are constant needs, in the general sense, such as access to food and clothing. The consumption of products has varied significantly.

It is probably true that most small shops are less able to satisfy these new demands as compare to bigger outlets. In the light of the above observation it is necessary to study the mechanisms that shops implement in a turbulent business environment.

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Problem statement

It has observed that shop owners/managers fight with hawkers and street sellers over space and the severe competition in business frequently lead to violence. Considering Nagpur, Sitabuldi Market against established retail outlets, small retailers have to be as effective and efficient as possible, exploiting whatever advantages they can obtain. Retailing is a complicated business, made even more difficult by financial problems and multiple competitions. Personal and family commitment, and skill of trading requires to survive successfully with these challenges. Appropriate training and advice could, possibly, enhance this ability. A more in-depth study of the marketing strategies adopted by businessmen at Sitabuldi in Nagpur was therefore required.

Review of Literature:

Review of literature plays a prominent role in research process. For doing any kind ofresearch researcher should take a note of what kind of research has been done previously.

Review of literature serves a variety of background functions before and during actual work of data collection. Review of literature has two important phases first is defining all relevant material liked published newspapers, on the particular topic and in the problem area and to read it and be familiar with the unknown concepts of the areas and second phase is of writing this foundation of ideas into a section of research report. Review of literature solves two purposes, one is for researcher, which establishes the background in the field and secondly, by providing a summary which helps the reader to understand the study.

This study tries to highlight the necessary demand for a progressive change needed in the ongoing shopping business. This as a result would further in transition from the current sections of the quality of strategic marketing decisions and will boost the profitability of the small shops owners. A review of the literature has been conducted so as to cloak the void of strategic marketing model and to eliminate the obstruction to avail the profitability ratio of shops of Sitabuldi Nagpur. The owners/managers of the shops were enquired about their status of employment and marketing mix variables and as to how they plan to attain profits out of their businesses. Therefore, to obtain the purpose of the current research 500 shops, hawkers and street vender were taken into account and were closely examined

Objectives of the study

1. To understand whether shop owners at Sitabuldi, Nagpur, adopt marketing strategies that maximizes

their profitability and hence owner's wealth

2. To determine how a lack of capital hampers on the marketing strategies of the shops at Sitabuldi, Nagpur

Hypothesis

H1: Shop owners at Sitabuldi, Nagpur, do not use marketing strategies to maximize their profitability and hence, owner's wealth

Theoretical hypothesis

In order to measure effectiveness of marketing strategy, a business has to break down its marketing function into basic parts, along with a mechanism through which to analyse the interaction between those parts. By doing this, decision-makers will finally be in a position to relate marketing expenses to shareholder value and to understand how to tie marketing initiatives back into the value created for the company. Decision-makers will be able to understand the internal motives that boost the marketing value of the business. The manipulation of the marketing variables like price variation and price promotion, research, advertising, product differentiation, quality, packaging and place will yield increased returns for the firms. Each of the variables are discussed in more detail below.

Customer service

The importance of customer service is often overlooked from the perspective of the organisation as organisations may assume that a competitive advantage centres primarily on price and that the customer focuses on price and will, therefore, only buy the product that is the cheapest.

Following factors also play a significant role in customer decision making and could provide a competitive advantage to the firm,

- Flexible business hours
- The availability of a backup service to the customers.
- The prompt fulfillment of promises.

In case of personal service to the customers following aspects are important

- Update data of customers
- Customer service

- Understanding the needs of the customer and fulfillment
- Availability of the products
- Train service staff (People oriented staff)
- Shop to be at prominent location can be an additional benefit
- Customer feedback and improvement/implementations accordingly

Price variation and price promotion

Price variation and price promotion is a set of pricing and promotional decisions designed to communicate a price position to consumers and influence short term sales response and ultimately overall market performance. We can say that pricing policy that is customer favoured will inspire repeat purchases ultimately resulting in profitability.

Advertising

Advertising is the paid promotion of goods, services, companies and ideas by an identified sponsor. Advertising is an important part of promotional strategy. Other promotional activities are publicity, public relations, personal selling and sales promotion (Anonymous, 2006). Advertising can be done using various means or using social media like Pamphlets, newspaper or magazine, on radio or TV, e-marketing etc. to inform customers about benefits of a product.

Product differentiation

Product differentiation is basically modification of product from competitor's product to make it more attractive and with more features**.** The changes are usually minor; they can be merely a change in packaging or may include change in the advertising theme. The objective of a product differentiation strategy is to develop a position that potential customers will see as unique. If the target market of a business views the product as different from the competitors', the firm will have more flexibility in developing its marketing mix. A successful product differentiation strategy will move the product from competing primarily on price to competing on non-price factors such as product characteristics, distribution strategy or promotional variables.

Quality improvements

Customers wiling to access wide range of goods at competitive prices and a convenient time, regardless of whether they live in a major city or suburban.,

Packaging

Packaging is the least expensive but at the same time a crucial component of the "marketing mix" for a product. Packaging is the manufacturer's last chance to convince the customer to purchase the product .First impression is the last impression and so we can say that packaging plays ancrucial role in promoting the appeal of products to first time users. However, after purchase, packaging becomes an aspect of service so as it should be easy to transport, store and unpack.

Distribution :- Through distribution goods and/or services are moved from the manufacturer/service provider and finally to consumers. Most of the retails buy their products from wholesalers or other distributors and sell it to consumers.

Research Methodology

Definition – Research:

Research can be explained as 'Something new physical and conceptualknowledge' The word 'new' is the principal concept in any formal definition or meaning of research. The formal definition of research: “It is organised systematic data based scientific enquiry or investigation into a specific problem undertaken with the purpose of finding answers or solutions to it. objectives of the research can be summarised as research fulfils a meaningful purpose when it's carried out methodically for the achievement of predetermined and meaningful objectives. Research has been always a unique work starting with an observation and ending with a report, recommendations and conclusions. Population and sample: At Sitabuldi, Nagpur there are approximately 500 shops, hawkers and street vendors. For this research, researcher has used a sample size of 50 respondents because of the time constraints. The questionnaire designed used several questioning techniques. The study employed five-point Likert scaled questions, multiple choice rating questions, open ended questions and open ended and single answer questions respectively. The questionnaire was pre-tested amongst five of the respondents identified in the sample to ensure reliability and validity.

Data collection

The researcher covered the area of study in 4 weeks, whereas approximately 15 min were required to complete the questionnaire.

Major findings Customer care

In this study it was found that there was strong agreement (61% strongly agree, 33% agree) by respondents

with the statement that customer interests should come first. The respondents believed in the saying that "the customer is king". However, a cause for concern is that when it comes to researching about customer preferences it becomes clear that shops at Sitabuldi in Nagpur do not put into practice what they preach because 61% do not measure their customer satisfaction levels on a regular basis. There are variations between what owners/managers believe is the guiding philosophy in their business and what the shop implement in order to achieve that guiding philosophy since they do not constantly measure the needs and wants of their customers.

Pricing

A total of 50% of the shops, in Sitabuldi , do not follow a constant mark-up policy. It can be seen that two different consumers may buy the same product within a short span of time of each other at a different price. This results in customer dissatisfaction due to cheated feeling. A total 67% of the respondents agreed that they offer discounts to their customers on a regular basis. A further 33% indicated that they, at times, offer discounts to loyal customers. If the proposed price change leads to a greater increase in total receipts than in total costs, it will, therefore, lead to increased profits.

Consulting customers

25 % respondents consult customers once a year

50 % respondents consult customers in festive seasons only

50 % respondents do not consult their customers

However, a cause for concern is the 50% of the retailers that do not consult their customers. Product preferences change within a short space of time, and such shops will not be able to match up with the changes in customer preferences. This negatively affects the financial performance of the small retail firm because 25% of the shops in Sitabuldi, Nagpur who do not meet the needs and wants of their customers, may find themselves with stock that is outdated because customers do not buy those products.

Advertising

It was found that word of mouth publicity was ranked as the most important form of product advertising by 93% of the respondents. The findings of the study indicate that shops in Sitabuldi, Nagpur rely much on direct contact methods such as word of mouth and venders to convey information about their product offering to their customers rather than non-physical methods such as community radio, where there is no direct contact with the customer. This implies that retailers in Sitabuldi, Nagpur they wait for customers to approach instead

of the retailers stimulating demand from their customers. Monthly shopping is done in the major supermarkets in the towns and cities, where the consumer is offered a multiple-choice-selection of brands at very competitive prices This could explain why shops in the towns are not completely dissatisfied with the variety of products which they stock. Only 20% of the respondents are unhappy with the level of variety of products which they offer.

Quality

All of the shop owners/managers in Sitabuldi, Nagpur agree that quality work should be valued but what they practice differ. Expectation so the customers are not regularly measured which makes it difficult for them to deliver according to customer expectations.

Packaging

A total of 89% of the respondents agreed that most of the shops in Sitabuldi, Nagpurdivide some of the items that they buy in bulk into smaller sizes. The majority of respondents also (78%) agreed that they do not have the right packaging. Only 8% of respondents agreed that they check the expiry dates of their products before dividing.

Distribution

A defining feature of the shops in Sitabuldi, Nagpur was that they are not able to influence their working environment in the same way as larger retailers. A total of 22% of the respondents disagreed with the statement that they know their competitors very well. A total of 36% neither agreed nor dis-agreed with the statement. Only 42% of the respondents in Sitabuldi, Nagpur indicated that they know their competitors very well. This implies that their marketing mix is not based on competition and this renders them more vulnerable as they are likely to keep obsolete stock.

Managerial implications

The study reveals important shortcomings in the marketing knowledge and practices of shop owners/ managers in Sitabuldi, Nagpur. The following recommendations can be provided to achieve sustainable profit levels. They should make an effort to establish the needs of their customers and train all employees in their tasks, especially in the field of customer service. Furthermore, many shops lack time, resources, technology or expertise to research and develop new business ideas and innovations. Shop owners should focus on price and qualitywhich will result in customer satisfaction.

The following guidelines could be considered to improve the quality of service :

i.) Service quality deliverance through staff training which includes customer care, and customer service.

ii.) Consistent and reliable product offering

iii.) Relationship Building

iv.) Pricing policy

According to the study findings, these shops also need to adopt the other 3 Ps of the marketing strategy, namely product, place and packaging in order to be more profitable.

The owners/managers of shops did, however, indicate that they lack the necessary funds to embark on extensive marketing practices. Shops in Sitabuldi, Nagpur also did not frequently measure the satisfaction levels of their customers regarding their service or product range. In the same manner, the majority of the respondents did not indicate increases in new customer acquisition and did not recognise that it is their duty to inspire the need in customers to purchase from their respective shops.

Their responses indicated that the majority of shops in Sitabuldi, Nagpur do not allocate part of their budget to promotion. The owners/managers of shops further indicated that they do not attempt to differentiate themselves from other businesses offering similar products. This implies that shops in Sitabuldi, Nagpur do not compete primarily on product differentiation and henceforth, they offer a limited variety of products.

Conclusively, it can be argued that shops in Sitabuldi Nagpur do not display behaviour that could reflect on a high degree of marketing orientation. The fact that they offer discounts to loyal customers was a desperate aim of getting turnover rather than a long term orientation focus on the needs and wants of customers. Furthermore, Shops also does not apply the principles of marketing strategy to enhance profitability to a significant degree.

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Public Private Partnership in Botswana
-With Special Reference to Health Care in Public Sector

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Abstract

This paper analyses Public Private Partnerships (PPPs) that are taking place at a macro and micro in the global as well as domestic setting. This study particular consider its analysis on the domestic health sector in Botswana by attaining the title of being a health sector benchmark for any further analysis pertaining to outsourcing in government hospitals. It considers the outsourcing of certain non- core hospital services in the domestic health sector. It finally looks at governments' main aims and concludes with the various constraints that are a hindrance to the pursuit of PPPs in a global and domestic setting in a developing country.

Introduction

Privatisation has been a phenomenon that gained a paramount stake in the economic growth and development of developing countries, more especially in Latin America, in countries such as Argentina, as well as in Africa, in countries such as Lesotho, under the recommendations of the World Bank and International Monetary Fund (IMF) that just so happen to be spearheading the privatisation initiative in developing countries. In so far as privatisation in its general form is hailed for its productive and allocative efficiency as well as the utilisation of private sector principles, such as revenue maximisation, in the execution of operations, Public Private Partnerships (PPPs) have been realised to be the most preferred form of privatisation more- so that multiple governments deem it as the one privatisation method whereby both the public and private sectors can directly and mutually benefit from commercial activities. (Botlhale, 2012)(Guseh, 2011)

Public Private Partnerships (PPPs) are a form of privatisation that refers to a numerous number between the public and private sectors and as such, PPPs may be regarded as a means of attaining private sector participation.(Felsinger, Skilling, Booth, & Mannapbekov, 2007). It simply encompasses, in its narrowest form, a government service being transferred to the private sector through the means of sourcing finance as

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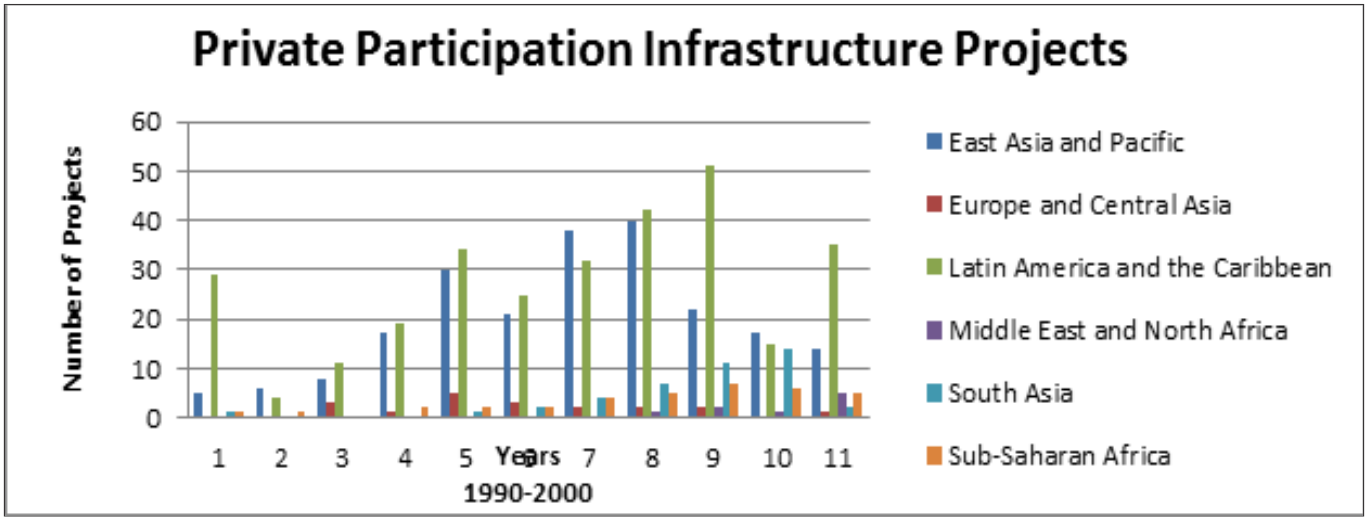
well as the operations involved in the provision of that particular service, which is sometimes referred to as public service outsourcing.(Dube, 2008)

Public Private Partnerships (PPPs) are viewed by some scholars as having the substantial potential to leverage economic efficiency and effectiveness in the delivery of public services through the installation of private sector principles in the provision of the service under consideration.(Yong, Mpabanga, & M., 2011). This particular arrangement of service provision, which is ultimately of a bilateral nature, acknowledges the complementary roles that both the public sector and private sector have to play in the delivery of services to the general public without any segregation with regards to the income levels of the consumers of the service. (Felsinger, Skilling, Booth, & Mannapbekov, 2007).

Bult- Spiering and Dewulf (2006) posit that the parties involved in a PPP transaction include a government (state) entity as well as a domestic or international private party and these may include businesses or investors who have the technical and financial know- how related to the project under consideration and in this context; tasks, obligations, and risks are to be appropriately allocated in such a way that each party to the bilateral agreement best delivers on its specific goals relative to those of the other party involved.(Felsinger, Skilling, Booth, & Mannapbekov, 2007)(Cartlidge, 2006). It is posited that a PPP involves the paramount implementation of necessary and viable strategies such that risks can be managed and appraised. Ideally, PPPs should be thought of as a sequence of events that are created and implemented in order to ensure that all the identified and existent risks are appropriately accounted for in the most accurate way as possible because both parties to the contract have invested a certain of amount, in the form of resources, to the partnership and as such there has to exist an efficient way of sharing costs, mitigating risk as well as risk allocation and apportionment.(Grimsey & Lewis, 2004)

Productivity plays a pivotal role in the performance and long- term sustainability of any organisation, regardless of whether it is private or state owned, this is because productivity paints a clear picture pertaining to the utilisation of scarce resources in any organisation and as such, efficiency and effectiveness are elements in this pertinent issue of optimisation.(SPRING Singapore, 2011). It is important to note, however, that there is no single measure for productivity. It is for this particular reason that there various alternatives with regard to the measurement of productivity. However, it is important to note that the measure of analysis is often chosen based on a number of factors, such as availability of relevant data necessary for analysis.(Organisation for Economic Co- Operation and Development, 2001)

Figure 1 : Private Participation Infrastructure Projects



Source: World Bank PPI Project Database.

In the domestic context of Botswana, not much literature, theoretical or empirical, exists on PPPs. However, in so far as this may be the case, the Government of Botswana has jumped on the privatisation bandwagon, through the Privatisation Policy of Botswana Government Paper No. 1 of 2000.(Botlhale, 2012). In so far as this may be the case, the government has still pursued the privatisation process through its privatisation policy and yet there is no concrete evidence vying for the proposed government initiative, more especially in developing countries due to the fact that the usually postulated benefits of privatisation are more often than not seen in developed economies, whereby the size of the economy is large enough to accommodate privatisation as a whole(BFTU, 2006). Therefore this paper aims to analyse outsourcing expenditures for Princess Marina Hospital, relative to various output indicators, in an attempt to have a yard- stick or gauge for any such analysis that aims to prove whether or not the postulated cost savings that have been seen in countries such as Spain, the UK and US for the contracting out of urban solid waste collection service by multiple municipalities(Bel & Miralles, 2002).

Secondly, the government of Botswana has invested tumultuous amounts of taxpayers' money in ensuring that it reduces the size of government as recommended by multiple scholars as being the gateway to a more efficient, effective and manageable public sector as opposed to the now frowned upon traditional state- led economy whereby government is the frontrunner and spear header of economic growth, due to the fact that many citizens have become dissatisfied with multiple bureaucratic inefficiencies as well as poorly performing public enterprises that are continuously being sub vented with public funds.(Haque, 2000).

The Ministry of Health in Botswana has been embarking on a programme of outsourcing of non- core services, with phase 1 of the five- year outsourcing strategy having been completed with the programme having been initially aimed at referral hospitals but now the ministry is implementing phase 2 whereby the outsourcing is to be implemented in district hospitals. However, there has been no empirical or analytical

work that can be used as a benchmark of the benefits of the programme to the parties involved in the partnership at the level of the referral hospitals. Simply put, it is unknown whether or not the programme is in actual fact benefitting the ministry, or whether the ministry is continuing with the programme due to the initial commitment and the hope and desire that if at all the outsourcing is currently yielding more drawbacks than anticipated benefits, then things might eventually take a turn for the better in future.

The general objective of the research is to employ an analytical approach to attain productivity ratios that will ultimately be used as a gauge of any comparative analysis that may be conducted with regard to outsourcing in public hospitals, I regardless of the size of the hospital under consideration such that a conclusion can be drawn up as to whether or not the contracted parties are indeed productive in performing the tasks that they were contracted for by the respective hospital. Therefore, the inclination is to investigate the productivity of certain firms contracted under the Public Services Outsourcing Programme's (PSOP)at Princess Marina Hospital. The specific objectives are:

This paper aims to address the fact that no prior research of the vital logistics as well as potential gains to outsourcing has been conducted and even if this may not be the case, such a research is unavailable in the public domain for public access. Secondly, there has been no progress report pertaining to the outsourcing programme such that mitigations to the prevailing setbacks and hurdles or aggressive pursuit of the prevailing positives can be addressed. This is simply because outsourcing is ground breakings programme for the government of Botswana, hence the reason behind why the Ministry of Health (MoH), through its hospitals, has been used as the 'guinea- pig' for the outsourcing programme.

This study will assist in the government in realizing whether or not the contracting out of non- core services, such as cleaning, in referral hospitals has indeed resulted in a greater level of productivity as per the firms that would have been contracted to do so and as such providing a substantial foundation for the rolling- out of the programme to the various district hospitals in the country. This is very paramount in aiding policymakers with regard to whether the PPP initiative government is currently pursuing is in actual fact bearing any fruit, particularly in a sector that is of a socially strategic nature as the health sector.Therefore this paper aims to serve as a benchmark and 'yard- stick' in aiding government to gauge the productivity of PPPs in the domestic health sector, due to the simple fact that a study showcasing this imperative performance measure has not been performed domestically.

Background of the Economy

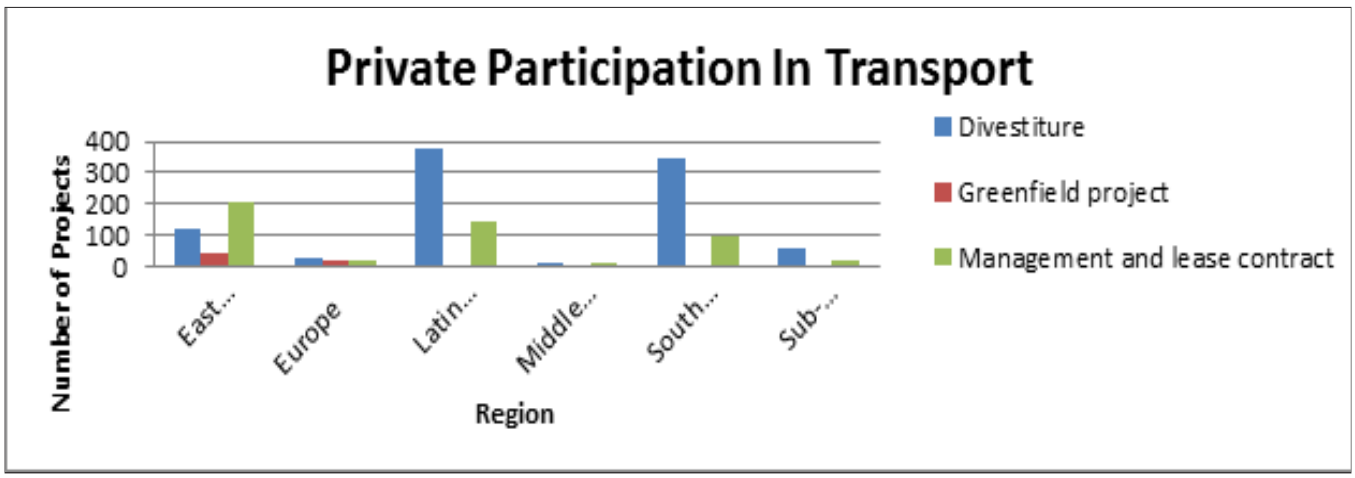
Botswana is an upper middle income country located in Southern Africa. In Botswana PPPs have been pursued on a global level in recent times. PPPs have been pursued in various forms in multiple countries such as Spain, UK and USA. In Spain, for instance, PPPs have been pursued in the collection of urban solid waste. Bel and Miralles (2000) conducted one such study to analyse the worth of contracting out of solid waste

collection.Various variables were used in the discrete binomial model that was used in analysing the demand for solid waste collection; secondly was the population variable that was used as a proxy in the demand of solid waste collection; thirdly is the municipality dispersion variable which also measures the number of units of population in the city; the fourth variable is the neighbouring effect variable which measures the effect that the outsourcing of such a service in neighbouring areas may have on the area under consideration.(Bel & Miralles, 2002)

In the United States (US), PPPs have been used for the provision of infrastructure. Between the years 1990 and 2006, the US spent an estimate of $10 billion. However, Europe is the dominant player in the utilisation of infrastructure provision through the use of PPPs, for example in the United Kingdom (UK) 32.5%of infrastructure investment in 2001- 2006 was from PPPs.(Engel, Fischer, & Galetovic, 2011).The Public Private Infrastructure Advisory Facility (PPIAF) is one of the international organisations that assist countries, more particularly the developing ones, in their privatisation pursuits. In so doing, it collects data and develops methodologies that can be utilised for further analysis; as well create an interactive platform for the dissemination of information and data.(Public Private Infrastructure Advisory Facility, 2014)

Figure 1 provides a somewhat holistic picture of the tasks carried out by the PPIAF in the pursuit of its mandate.

Figure 2 : Number of projects by region and type



Source : World Bank PPI Project Database

With the publication of the Privatisation Policy of Botswana Government Paper No. 1, 2000, the government attempted to privatisation bandwagon that had been making waves in most developing countries. The main aim in this particular instance was to drive the Botswana economy such that it had private sector led economic growth(Republic of Botswana, 2009). In so doing, government decided to pursue Public Private Partnerships in the provision of non- core clinical services in the 3 referral hospitals of the country, through the Ministry of Health Public Services Outsourcing Programme (PSOP) as well as with assistance from the

Public Enterprises Evaluation and Privatisation Agency (PEEPA). The Ministry of Health recently completed its first phase of the five- year outsourcing strategy and is about to begin the second phase which will now extend the outsourcing to the district hospitals, which is now on a greater scale and scope relative to the first phase.

PEEPA is a result of the Privatisation Policy of 2000. It is mandated with performance monitoring and evaluation of the performance of public enterprises; being the privatisation and restructuring of parastatals spear header in the domestic economy; as well as being the chief advisor to government on issues pertaining to how various forms of privatisation, such as commercialisation and outsourcing can be done, as well as the most suitable parastatals to undergo the recommended form of privatisation. (Public Enterprises Evaluation and Privatisation Agency, 2012)The understanding in this particular instance is that since the government has put in place a specialisedorganisation that is specifically mandated with dealing with issues of privatisation then any such appropriate privatisationendeavour will be expedited.

On the productivity element in the domestic area of this particular paper, we have the Botswana National Productivity Centre (BNPC). This particular organisation is a parastatal that was formed through an Act of parliament in December 1993 with the paramount mandate of formulating ways to sensitiseorganisations across the different economic sectors on ways in which productivity levels can be improved through the use of training and consultations such that all organisations under consideration can be competitive and productive in the global economy. (Home: Botswana National Productivity Center)

In the domestic context of Botswana, PEEPA has spearheaded the pursuit of PPPs. In general, the pursuit of PPPs is still at an infant stage as the process recently begun in 2011 in the domestic health sector but very recently, various municipalities in the different districts in the country have begun to outsource solid waste collection under the PEEPA run PSOP, which is an arrangement similar to that of Spain. However, it is important to note that this PPP is still at its introductory stages and as such no meaningful conclusion can be drawn from this particular domestic outsourcing programme other than the fact that privatisation is now taking strides in trying to see to it that a private sector led economy suffices.

The government health sector in Botswana consists of only three referral hospitals located/ situated on the eastern side of the country, stretching from the south eastern part of the country to the north eastern part. The city of Gaborone which is the capital city of Botswana boasts only one such hospital named Princess Marina

Hospital (PMH) which is the country's first hospital that begun operating in April 1967 just as Botswana had attained independence. The second referral hospital is the Nyangabgwe Referral Hospital which consistently continues to serve as the epitome of quality health care in the northern part of the country. The hospital first begun operating in 1989 and as such was now able to serve the general public. The third and final referral hospital is the S'brana Psychiatric Hospital (SPH) which serves as the country's only mental hospital.(Ministry of Health)

However, as is the case with most developing countries, reliable and relevant statistics are still at a developing stage and as such, given the lack of substantial investment in the attainment and development of optimal methodologies, it is very difficult to attain the necessary data such that certain theories or research questions can be falsified or verified. Given the above mentioned, attaining the necessary and relevant data was an impediment in this particular paper.

Furthermore, in relation to the aspect of a developing country, various bureaucratic tendencies and procedures exist in the public sector workforce. Access to information and data that may potentially be paramount to any form of analysis as well as research purposes is at certain times somewhat restricted under the façade of confidentiality. This is primarily due to the fact that in developing countries, there is a lack of investment in the collection and dissemination of statistics as well as a development of efficient and effective data collection methodologies. Therefore, it was quite often for necessary data to be unavailable and as such the analysis in this particular was consequently affected.

Literature Review

Given the prevailing circumstances as illustrated in the above, all the organisations as well as countries in which benchmarking was conducted, drives home a particular aspect of analysis such that the literature does in fact relate to the background of the economy.It is important to note however that the restrictive data availabilityin Botswana was also an impediment inthe applicability of various models in this area(Molokwane & Tshombe, 2017).The substantive findings, more particularly in the empirical literature, showcase the various and multiple forms and aspects of outsourcing in the global economy such that any model drawn for Botswana can have a secondary model to bear reference to.

Definition of Productivity: Productivity is more often than not defined as *"a ratio between the output volume and the volume of inputs."* Basically, productivity is a simple measure of how the productive inputs of labour

and capital are efficiently and effectively utilised in an economy such that a certain level of production can be achieved.

Productivity can also be defined as "*a measure of the efficiency of a person, machine, factory, system, etc., in converting inputs into useful outputs*."(WebFinance, Inc Web site). On the other hand, the OECD (Organisation for Economic Co- Operation and Development) *Productivity Manual* (2001) defines productivity as *"a ratio of a volume of output to a volume measure of input use"(Organisation for Economic Co- Operation and Development, 2001)*.

Measurement of Productivity: SPRING Singapore (2011) posits that in order for firms and organisations to be competitive and profitable then productivity is very vital and as such they believe that the Integrated Management of Productivity Activities (IMPACT) framework that they have developed can help to effectively enhance productivity on the condition that it is managed well. Under the IMPACT framework, various measures have been postulated with regard to either output or input.Output is potentially in the form of either the services offered or the goods that the firm produces and as such, output can either be of financial value or a physical quantity.(Del Gatto, Di Liberto, & Petraglia, 2009) With regard to physical quantity, whereby services and products are homogenous then output is measured in units that are of a physical nature, for example the number of customers served. Such a measure is not affected by any variations in prices and as such, they reflect the efficiency and effectiveness of a production process. The alternative measure is that of financial value. This particular measure takes into account the fact that output is very rarely consistent and thus it takes the monetary values of the production process, for example sales and value added.

On the other hand, measures of inputs simply refers to the resources that are used in the production of a particular good or service, usually being in the form of labour or capital. Labour basically refers to the various levels of individuals employed in an organisation and can be measured in three different ways: number of hours worked, number of workers engaged and the labour cost. Capital simply refers to the firm's assets that are of a physical nature such as equipment and machinery and it can further be measured in physical quantity as well as financial value. Intermediate inputs on the other hand include things such as materials and energy.(SPRING Singapore, 2011)

Table : 1 Overview of main productivity measures

Type of output measure	Type of input measure			
	Labour	Capital	Capital and Labour	Capital, labour and intermediate inputs (energy, materials, services)
Gross output	Labour productivity (based on gross output)	Capital productivity (based on gross output)	Capital- labour MFP (based on gross output)	KLEMS multifactor productivity
Value added	Labour productivity (based on value added)	Capital productivity (based on value added)	Capital- labour MFP (based on value added)	
	Single factor productivity measures	Multifactor productivity measures		

Source : OECD (2001)

According to the OECD *Productivity Manual* (2001) of measuring productivity, there are multiple types of productivity measures and deciding on which measure to choose solely depends on the reason behind that particular form of productivity measurement as well as on the availability of data. On a broader scope, productivity measures can be grouped as either single factor productivity measures (basically linking a single measure of output into a single measure of input) or multi factor productivity measures (basically linking a measure of output to a bundle of inputs

Labour productivity, based on gross output, simply shows the productivity level with which labour is used to generate gross output. However it is important to note that changes in productivity of labour reflects a combined dependence of variations in capital, intermediate inputs, as well as technical, organisational and efficiency variations within and between firms, the effect of economies of scale and utilisation of capacity. Labour productivity only somewhat showcases the productivity of labour with respect to the personal capacities of the workers involved or the sharpness and acuteness of their effort. When labour productivity is measured as per the gross output per unit of labour input, then the percentage of intermediate inputs also has a bearing on labour productivity. When dealing with outsourcing, the implication is that there exists a substitution of primary factors of production, including labour. As a result, gross- output in terms of labour

productivity rises subsequently and when in- house production replaces the purchasing of intermediate outputs, it declines. However it is important to note that this does not cast back a variation in the individual characteristics of the existent workforce.What this simply means is partnerships, through contracting, can be utilised as a form of gaining non- financial benefits for the government, such as private style management and recovery of costs whilst still awarding the public sector a certain level of control over the provision of that particular service that is being outsourced. One other reason for such a development is because more often than not, the private sector has the requisite capacity to introduce enhanced methods of production that could easily foster increased efficiency and effectiveness in the operations of that particular project more- so because the firm itself assumes some risk, on a financial and operational level and therefore the firm will be assumed to optimise as much as possible.(Rao & Vokolkova, 2006).

Labour productivity based on gross output has the purpose of tracing the per unit of physical output labour contributions required. It mirrors the variations in the labour coefficient of input as per the different industries and can further aid the perusal of the required labour in a particular industry. The gross output method is somewhat easier to measure because it only takes into consideration gross output price indices as opposed to the inclusion of intermediate inputs which is the case with the labour productivity measurement based value added. However, the disadvantage of such a method is that it only measures productivity partially and mirrors a combined effect of host factors and as such, one can be misled to assuming that it represents technical change or that it is labour force productivity as per the individuals participating. (Organisation for Economic Co-Operation and Development, 2001)

On the other hand, labour productivity, based on value added, basically showcases how labour can be productively utilised to result in a certain amount of value added. Under this particular circumstance, the productivity of labour reflects the combined effects of variations in capital, including technical, organisational and efficiency variations internally and amongst firms, the effects of the economic phenomenon of economies of scale, as well as the changing emphasis with regard to the utilisation of capacity and measurement errors. It is important to note that as opposed to labour productivity, based on gross output, labour productivity, based on value added, has a growth rate that is not as affected by any variation in the proportion of intermediate inputs to labour, or the sharpness of the phenomenon of vertical integration. One illustration of the above mentioned can be seen when outsourcing takes place, whereby intermediate inputs are used as a substitute for labour. What this does is it ultimately results in a decline in the value added including a decline in the input of labour. Therefore, measures of labour productivity based on value- added have a tendency of being less responsive to the exchange of materials as well as services and labour as opposed to the measures based on gross output.The purpose of such a measure can be observed in the

investigation of micro- macro links, such as inter- sectorial contribution to the wholesome growth of the economy as well as labour productivity. Value added labour productivity can be utilised as measure a measure of the current standards of living as well as the per capita income. Furthermore, this particular measure carries more weight in assuming the role of being a reference statistic when it comes to the bargaining of wages. The measure has similar advantages and disadvantages to those of the gross output productivity of labour.(Organisation for Economic Co- Operation and Development, 2001). The OECD Manual (2001) considers measures of capital- labour multifactor productivity which is based on value added, as well as capital productivity which is based on value added, but the method that is of more concern in this particular paper is the Capital- Labour-Energy-Materials- Services (KLEMS) Multifactor productivity. Conceptually, the KLEMS measure represents disembodied technical change, but in practice it encompasses change in efficiency, economies of scale, and changes in the utilisation of capacity as well as measurement errors. Analysing technical change at industry as well as the sectoral level is the main purpose for such a measure. However this method is limited to the substantial data requirements.

Empirical Literature :

For reasons of inference, focus in this paper is on various PPP projects that have been undertaken in the Southern African Customs Union (SACU) in the respective member states health sectors. The first country to be analysed is that of Lesotho where a different type of PPP was chosen in the form of DBFO (Design- Build-Finance- Operate) concession that is to take a period of 18 years.(Grimsey & Lewis, 2004).Unfortunately, the concession has fallen out of favour because of its substantial costs redistribution of the health budget. The concession costs the government $67m per year, which is at least three times what the old public hospital would have costgovernment.Furthermore, it consumes 51% of the complete government health budget as well as necessitating that the government increase its health expenditure by a projected 64%(Consumer Protection Association (Lesotho), 2014). However, the PPP shareholders are expecting to make a 25% return on equity and a projected income of 7.6 times the original investment that amounted to a capital value of over $100m(Coelho & O'Farrell, 2009).

Anothercountry in Africa that is pursuing PPPs is South Africa. The Pelonomi and Universitas hospitals were taken under a Co-Location project type PPP. This is whereby both the private sector investor and public sector entity conduct their daily tasks of the provision of medical care and facilities in a single location. The private sector partner invested a total capital investment of R70.9million. From the period of 2004- 07, revenues increased from R3.196million to R9.588million.(Shuping & Kabane, 2008)

Most of the empirical work in this paper is taken from Jensen &Stonecash (2004) which is a paper that simply

deals with public sector outsourcing contracts and their efficiency. Outsourcing proponents suggest that the process will somewhat subsequently lead to a more efficient and effective allocation of resources and consequently reduce the fiscal burden on government. However, the postulated cost savings are difficult to substantiate(Jensen & Stonecash, 2004).

Most studies considered cleaning and collection of refuse due to the fact that these services are more often than not outsourced and there exists some ease in measurement of the outputs. (Edwards and Stevens, 1978; Domberger, Meadowcroft&Thompson, 1986 and 1987; Dijkgraaf and Gradus, 2001; Milne and McGee, 1992). Empirical evidence suggests that when production is shifted to an external source, on average, there is a decrease in the fiscal burden on government. It is posited that this is due to the fact that there may be: economies of scale, more efficient and effective work ethic, substituting labour with capital, and innovation, to mention but a few(Jensen & Stonecash, 2004).

Holstrom and Milgrom (1991) developed a multi- tasking method, where it is postulated that an individual will exert more effort in an activity that is measured with a greater level of ease, with the expectation of a reward, and as such, quality may be sacrificed at the expense of increasing productivity. This basically paved the way for the quality- shading hypothesis. However, Hart, Shleifer and Vishny(1997) developed a model in the presence of incomplete contracts, a private sector firm will have the incentive to optimise and improve the quality of the service rendered. It is noted though that service quality is difficult to measure and as such, it is more often than not related to performance characteristics of which their assessment is subjective(Lagarde & Palmer, 2004). One such inference can be seen in Domberger and Jensen (1997) who suggested that, under the context of cleaning, one can only measure cleanliness through observation, thereby rendering an element of subjectivity because of the lack of standardization in determining the extent or level of cleanliness of an area. Simply put, the output of cleaning is difficult to measure because it is at the mercy of the individual who conducts the inspection of the cleaned surface area and as such it is a subjective output that has no standard measure.

Insofar as there is not much analytical expenditure literature on the contracting out of cleaning services, a substantial amount exists on the contracting out of urban waste collection, more especially in countries such as Spain. Bel and Miralles (2002) used a binomial discrete choice model to test their hypothesis. They used a dummy variable as their dependent variable for the provision of the service which takes the value zero in case of direct public provision and one if the service was contracted out. Considering the cross- sectional data for the two periods 1979-98 and 1991- 98,their results showed a significant relationship between the demand for waste collection and the decision to contract. The relationship was also realised to be inverse U- shaped(Bel & Miralles, 2002).

The analysis in this paper is solely focused on the domestic health sector with the aim of having a health sector productivity 'yard- stick' in terms of the analysis that was done using data pertaining to Princess Marina Hospital outsourcing expenditures.Given the aforementioned constraints the analysis was restricted to Princess Marina Hospital, due to the hospital's size, location and number of outsourced services as well as the length that these non- core hospital services had been outsourced. Furthermore, pre- outsourcing data was not available and sadly not even the Ministry of Health had the data and as such the analysis lacked the advantageous and envisaged pre and post- outsourcing comparative analysis that would aid in gauging productivity under the two different periods as well as potential explanations as to why the results would be as they are. Furthermore, this paper will consider three non- core services that the hospital has outsourced since 2011. The services under consideration are cleaning, security and laundry.

Methodology

The perusal of various studiesled to the adoption of the Saari 2004 Production Model, in attempting to analyse the productivity of contracted private sector firms in the provision of cleaning services to the government referral hospitals.

Figure 3 : Saari 2004 Production Model

		Period 1			$Q_1 \times P_2$	Period 2		
		1	2	3	4	5	6	7
		Quantity	Price	Value		Quantity	Price	Value
a	Product 1	210.00	7.20	1512.00	1491.00	247.25	7.10	1755.48
b	Product 2	200.00	7.00	1400.00	1430.00	195.03	7.15	1394.46
c	Output			2912.00	2921.00			3149.94
d	Labour	100.00	7.50	750.00	770.00	115.00	7.70	885.50
e	Materials	80.00	8.60	688.00	680.00	79.20	8.50	673.20
f	Energy	400.00	1.50	600.00	620.00	428.00	1.55	663.40
g	Capital	160.00	3.80	608.00	624.00	164.80	3.90	642.72
h	Input			2646.00	2694.00			2864.82
i	Surplus value (abs.)			266.00	227.00			285.12
j	*Surplus value (rel.)*			*1.101*				*1.100*
k	Change of distribution (abs.); i4-i3				-39.00			
l	Distribution index of output; c4/c3				1.003			
m	Distribution index of input; h4/h3				1.018			
n	Distribution index; l4/m4				0.985			
	Distribution process							
p	Productivity; c4/h4, c7/h7				1.084			1.100
q	Productivity index; p7/p4							1.014
r	Change of productivity (abs.); (q7-1)×c4							41.12
s	Volume index of output; c7/c4							1.078
t	Volume index of input; h7/h4							1.063
u	Change of input volume (abs); (t7-1)×(i4+r7)							17.00
	Real process							
v	Change of profitability; j7/j3							0.999
x	Change of returns; c7/c3							1.082
z	Change of costs; h7/h3							1.083
	Production process							

Source : Saari(2011)

The model makes use of two time periods in its analysis taking into account various expenditures on factors of production as well as the final values of the produced products. The analysis begins with the calculation of profitability through the utilisation of surplus value as a gauge for profitability. The impact of each of the processes is calculated under the assumption of "*ceteris paribus"* so as to attain the individual effects of each of the processes on profitability. (Saari, 2011) The factors of production that have been adopted by Saari in this particular model are somewhat of a reference to the Organisation for Economic Co- Operation and Development (2001) utilisation of the KLEMS approach that employs the aforementioned factors of production in the calculation of productivity.

However, it is important to note that the applicability of the model to Botswana, as well as this particular research, is very much limited if not minimal. Firstly, the model makes use of a two- period analysis, which implies that the various values are posited to fluctuate with the differing time periods. However, this is not the case in the analysis in this particular paper because the outsourcing that is taking place in the health sector is one that deals with contracts stating how much the contracted firm receives for the provision of its services and as such our values are expected to be constant throughout the period of the contract.

Secondly, this model is most suitable for productivity in manufacturing as opposed to that of services, which form the key part of analysis in this particular paper. This is because gauging the value of cleaning a certain surface area is very difficult to attain.(Domberger & Jensen, 1997). Therefore, given the aforementioned, the analysis in this paper resorts to the use of input and output indicators.

However, the component of inputs can be related to the research with great ease and as such their adoption in this paper does not pose any impediment whatsoever to the analysis.

Given the aforementioned, the preferred form of analysis in this particular paper will be an analysis at the micro- economic level of the oldest government- owned referral hospital. The employed formula will be:

$$\text{Productivity} = \frac{Output\ Indicator}{Input\ Indicator}$$

Considering the above formula, there was a need to select and utilise appropriate input and output indicators suitable and applicable to the preferred form of analysis in this particular paper. The input indicators in this instance were adopted from the Saari 2004 Production model above. Howeversome form of ingenuity has to be established such that each of the utilised input indicators is appropriate for the analysis of the specific service under consideration.

Explanation of Variables

Input Indicators

Variable	Service		
	Cleaning	**Laundry**	**Security**
Labour cost	Cost of contracted cleaners to the hospital.	Cost of contracted laundry personnel to the hospital	Cost of security guards, including supervisors
Materials cost	Cost of equipment, such as cleaning mops	Cost of equipment purchase, such as a new linen dryer	N/A
Consumables cost	Cost of cleaning aids such as soaps and detergents	Cost of laundry aids, such as laundry/ linen detergents	N/A
Administrative cost	N/A	Cost of laundry services administration, such as transport costs	N/A

Output Indicators

Number of Doctors	The number of doctors stationed in the hospital at any particular point in time
Number of Nurses	The number of nurses stationed in the hospital at any particular point in time
Number of Beds	The total number of beds in the hospital for admitted patients
Area of the Hospital	The total area of the hospital (inclusive of the Institute of Health Sciences, Gaborone)

Data: Secondary data was used due to the fact that data was available from the respective government owned referral hospital. The data was pooled because it was collected monthly for duration of 3 years (the duration of the contract). The coverage of the data was2011-14 and the data collected was for Botswana only.

Benchmarking: International or even regional benchmarking was very difficult and did not yield much potential literature. In Africa, Namibia had the closest type of outsourcing in comparison to that of Botswana. The constraint was data availability. In Europe, most of the outsourcing is in the form of urban- waste collection, which in Botswana is still at the initial stages(Levin & Tadelis, 2008).

In South Africa however the situation is quite different from the domestic instance. The South Africans adopted a model of – location PPPs in its Pelonomi Hospital as well as Universitas Hospital. This was mainly due to the persistent underutilisation of these two hospitals and as the state thought it appropriate to seek

private sector participation in trying to expand the services offered by the respective hospitals as well as eliminate the rampant underutilisation of the said hospitals.

Capital investments were as follows:

Figure 4 : Capital Investment in PPP in South Africa

Capital Investment By Private Partner (Rand million) -Universitas Hospital	
Renovations to 8th and 9th floor	15.2
New private medical centre	24.7
New medical equipment	1.7
Subtotal	41.6
Pelonomi Hospital	
Renovation of public hospital	23.6
Construction of private hospital	5.7
Subtotal	29.3
Total	70.9

Source: Maharaswa 2006

Empirical Data Analysis

Hospital Monthly Outsourcing Expenditure: All the expenditures considered for this study are monthly expenditures that take place throughout the duration of the contract. It is imperative to note that access to all the envisaged data was highly restricted by the various bureaucratic procedures that are persistent in the public sector as well the reluctance of the private sector to avail its expenditure data also.

The analysis looks at the three outsourced services of cleaning, security as well as laundry. This is because these three are the most pertinent services that are being outsourced and have been outsourced for the greatest period of time relative to other services.

Cleaning

Figure 5 : Cleaning Expenditure

Category	Monthly Expenditure (P)	Percentage (%)
Labour	384 181.28	0.47
Equipment	90 496	0.11
Supplies	199 584	0.244
Administrative	85 792	0.105
Specialised services	57 120	0.07
TOTAL CLEANING	P817 173.28	1

Source : Princess Marina Hospital

Security

Figure 6 : Security Expenditure

Labour Category	Monthly Expenditure (P)	Percentage (%)
Supervisor	6 666.240	0.045
General Hospital	121 117.248	0.824
Health Centre	19 123.776	0.131
TOTAL SECURITY	P146 907.264	1

Source : Princess Marina Hospital

It is important to note that security expenditure is spent on the total number of days in the month. The above expenditure is for when the service is conducted for thirty- one (31) days.

Laundry Expenditure

Figure 7: Laundry Expenditure

Category	Monthly Expenditure (Botswana Pula)	Percentage
Labour	148 905.478	40.3
Materials	59 218.308	16.0
Consumables	115 153.954	31.1
Administrative	46 613.717	12.6
TOTAL LAUNDRY	369 891.457	100.00

Source: Princess Marina Hospital

General Hospital Data

Figure 8 : Personnel Information

Item	Number
Doctors	135
Beds	540
Nurses	500
Hospital area	300mx450m

Source : Princess Marina Hospital

Cleaning Productivity Ratios: Four ratios were analysis.

$$\frac{Area\ of\ hospital}{Labour\ expenditure} = \frac{135\ 000}{384\ 181.28} = 0.3500$$

The above ratio suggests that each Pula spent on direct labour for cleaning is spent on 0.35m^2 of the hospital's total area

$$\frac{Number\ of\ beds}{Equipment\ expenditure} = \frac{540}{90\ 496.00} = 0.0060$$

The above ratio means that each Pula spent on cleaning equipment is spent on relatively 0.0060 of the hospital's total beds

$$\frac{Nurses}{Supplies\ expenditure} = \frac{500}{199\ 584.00} = 0.0025$$

The above ratio means that each Pula spent on supplies expenditure is spent on relatively 0.0025 of the hospital's total nurses at a particular point in time

$$\frac{Doctors}{Administrative\ expenditure} = \frac{135}{85\ 792.00} = 0.0016$$

The above ratio means that each Pula spent on the administration of cleaning is spent on relatively 0.0016 of the hospital's total doctor workforce

Security Productivity Ratios

$$\frac{Area\ of\ hospital}{General\ hospital} = \frac{135\ 000}{121\ 117.248} = 1.1146$$

The above ratio means that each Pula spent on the security labour force in care of the general hospital is roughly about 1.1146m^2 of the hospital's total area

$$\frac{Doctors}{Supervisors} = \frac{135}{6\ 666.240} = 0.0203$$

The above ratio means that each Pula spent on the supervisors of the on- duty guards is spent on relatively 0.0203of the hospital's total doctor workforce

$$\frac{Nurses}{Health\ centre} = \frac{540}{19\ 123.776} = 0.0282$$

The above ratio means that each Pula spent on guards at the health centre of the hospital is spent on relatively 0.0282 of the hospital's total nurse workforce

Laundry Productivity Ratios

$$\frac{Area\ of\ hospital}{Labour} = \frac{135000}{148\ 905.478} = 0.9066$$

The above ratio means that each Pula spent on laundry labour is relatively spent on about 0.9066m^2 of the hospital's total area

$$\frac{Number\ of\ beds}{Consumables} = \frac{540}{115\ 153.954} = 0.0047$$

The above ratio means that each Pula spent on the laundry consumables is relatively spent on about 0.0047 of the hospital's total number of beds

$$\frac{Nurses}{Materials} = \frac{500}{59\ 218.308} = 0.0084$$

The above ratio means that each Pula spent on laundry materials is relatively spent on about 0.0084 of the hospital's total nurse workforce

$$\frac{Doctors}{Administrative} = \frac{135}{46\ 613.717} = 0.0029$$

The above ratio simply means that each Pula spent on the administration of the laundry is relatively spent on about 0.0029 of the hospital's total doctor workforce. The above ratios serve as a benchmark and gauge for service productivity in the health sector, more especially pertaining to referral hospitals in the public sector. The various ratios symbolise certain aspects of the multiple expenditure categories relative to general hospital details, such as personnel and number of beds. The main benefit of the above ratios is that any other form of analysis relative to the one above will have a gauging system to refer to and reflect upon.

All the variables taken into consideration in this paper each had a role to play in painting a particular picture about the hospital's expenditure on each of its outsourcing contract and as such were considered significant.

Summary and Conclusion

This study examined the applicability of PPPs in the health care in public sector in Gaborone. The key impediments in this particular study were; firstly the reluctance of private sector hospitals to access their expenditure as well as general hospital data for analysis and as such, the desired comparative micro- level

economic analysis was not realised. Secondly, the bureaucratic procedures that existed in the solicitation of data in the hospital were such that data was not attained efficiently and effectively. Thirdly the inability to retrieve past expenditure when the non- core services were still performed by the government itself. Therefore, there exists no such way in order for the research to conclude that there has been an improvement and that the government's objectives, as mentioned earlier in this paper, have been achieved or realised and as such no recommendation can be made as to whether the PSOP is warranted to be streamlined out to the state district hospitals.

Concluding that in actual fact there has been an enhancement in productivity is well below par in terms of being achieved in this instance. This is because no private- public sector comparison has been conducted nor has there been a pre- outsourcing and post- outsourcing analysis therefore, the results of this paper can only serve as a yard- stick for future productivity analyses because the requisite data requirements for the analysis to have been of a more wholesome nature had not been met. However it is important to note that the government's objective of attaining private sector participation in the health sector has been and continues to be achieved given the fact that the outsourcing tenders are awarded on a competitive tendering process.
Furthermore, the specific objectives of this study have been met in the least possible way. It is important to note that it has been realised that a broader scoped analysis containing, pre- outsourcing as well as post-outsourcing data and expenditure data from the private sector hospital counterparts is necessary in order toconclude on a broader spectrum that indeed outsourcing has answered the aforementioned research questions.However, this does not consequently mean the results of this particular paper should simply be discarded because they serve as benchmark for any further comparative analysis that may take place in the domestic health sector pertaining to outsourcing in the above considered services

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An Analysis of Trends in Fiscal Deficit in the Perspective of Indian Economy

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Abstract

Fiscal deficit has been always challenging to the developing nations in spite of adopting many measures by the government to balance it. Fiscal deficit indicates the borrowing requirements of government in order to finance their shortfalls. The concept of fiscal deficit has gained considerable attention in recent times in India. The main purpose of this paper is to investigate the trends of fiscal deficit on Indian economy. This paper covers the time period from 1991-92 to 2016-17 to find out the trends in fiscal deficit. Findings of the paper observes that due to economic crisis of 1991 and many other reasons fiscal deficit was accelerated to high level that led the excess burden on economy. This persuades government to discover new measure to balance the deficit. In the same context government adopted New Economic Policy, Fiscal Responsibility Budget Management Act to reform the deficit at more rational level. With this positive enthusiasm government has reduced deficit perpetually since FRBM act and reached to 3.49% of GDP in 2016-17 from 5.39 % of GDP in 1991-92. The study suggests that government of India should check the fiscal deficit in order to achieve sustainable growth in the economy. Government investment should be directed towards human development indicators such as health, education, infrastructure etc. to boost productivity of both human capital and physical capital, which will have positive impact on gross domestic product of the country and overall development of the nation.

Key Words: - Fiscal deficit, Economic growth in India, gross domestic product.

1. Introduction: -

Fiscal deficit presents a more panoramic view of budgetary imbalances. During a financial year when a total disbursement of government which excludes repayment of debt exceeds total receipts of government excluding the debt receipts is described as fiscal deficit. While calculating fiscal deficit, borrowing is not a part of it. The measurement of fiscal deficit is done as a percentage of gross domestic products. It is a measure to know about borrowing requirement with a warning indication to reduce public expenditure or enhance the sources to collect increased tax and non-tax revenue.

By 1990-91 the economic condition of India was very miserable. In the economic crisis of 1991, the weak

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economic situation further worsened due to low productivity of public sector on high cost, excessive imports with less growth of exports led balance of payment deficit, inadequate foreign exchange reserves, and ignorance of private sector. To manage the crisis Indian government headed by Prime Minister NarsimhaRao and Union minister Manmohan Singh commenced the New Economic Policy of 1991 with major economic reforms focusing on stabilization measures and structural reform measures. Government also brought infiscal reforms refers to taxation and public expenditure policies through new economic policy. Further the finance minister of India Mr. YashwantSinha introduced Fiscal Responsibility and Budget Management Bill called FRBM in December 2000 to consolidate fiscal discipline and reduce debt burden. This act augmented the transparency in fiscal system and budget management of government. The successful achievement of this act can be seen in the following years when deficit tended to decline over the years. There was a significant decline in fiscal deficit from 4.34% in 2003-04 to 3.88% in 2004-05.

Fiscal deficit can adversely affect the economic growth of a country therefore it is a major issue of concern. In this context, this study has examined the trends of fiscal deficit in the perspective of Indian economy for the time period from 1991-92 to 2016-17.

2. Review of Literature: -

Literature reveals that economic growth and continuity of government deficits have been in many countries as it is an important issue of concern.

Theoretical Perspectives-

The Neo-Classical View- The neo classical economists find fiscal deficit unfavourable as it has negative impact on economic growth of a country. They argued that the component of revenue deficit in fiscal deficit shows a decline in government savings. This effects economic growth adversely if it is not fully offset by private savings. Thus a decline in national savings put pressure on the interest rate. It causes fall in investment which further results to downfall in general level of output in the long run.

Keynesian View of Fiscal Deficit- The Keynesian view emphasizes the short run effects of fiscal deficit on growth and multiplier effects of government expenditure on national output. It is assumed that there is existence of some unemployed resources and human during recession. Therefore, a rise in autonomous government spending increases both investment and consumption, hence expands output level through multiplier process. In the Keynesian analysis, fiscal deficit is an important macroeconomic policy in which increased government spending leads to raise demand, investment, output level and employment that actually make people wealthier.

Ricardian Equivalence Perspective- In the perspective of Ricardian, fiscal deficit has neutral effect on

economic growth. The excess spending of government does not have significant impact on present individual's consumption and savings as it is only postponement of taxes. In other words, it must be paid in the form of taxes in near future. Alternatively, expansionary budget implies decline in government saving which may be fully offset by an increase in private savings. Then there is no impact on real interest rate. Therefore, fiscal deficit is a useful tool to meet the requirements of lumpy expenditure.

Empirical Studies-

Ariyo and Raheem (1991) made an in-depth investigation of the impact of fiscal deficit on the level and direction of economic growth and development as might be reflected in the behaviour of key macroeconomic indicator such as current account balance, government investment, private investment, inflation, interest rate, external and internal debts profiles, etc. The findings also confirmed a direct relationship between fiscal deficit and inflation. **Olowononi (2006)** He showed that fiscal deficits had negative impacts on most macro-economic variables. The results showed that fiscal deficits had increasingly caused inflation in Nigeria. The fiscal deficits were negatively related to unemployment, meaning that the results confirmed the prescription of economic theory that rising fiscal deficits leads to reduced unemployment. It was also discovered that there is negative relationship between fiscal deficits and gross capital formation and private investment in Nigeria.**RanjankumarMohantey (2012)** used time series data from 1970-71 to 2011-2012 to examine empirical relationship between fiscal deficit and economic growth in India. Vector Error Correction Model and Granger Causality Test reject short run relationship. The finding of the study reflects long run relationship between fiscal deficit and economic variables is negative in nature. If fiscal deficit stokes 1 percent, then Gross Domestic Product falls by 0.216537. It suggests that productivity of human capital and physical capital can be enhanced by reducing subsidies and investing money in health, education, infrastructure sectors. **Umaru, A.D., Gatawa, A.U. (2014)** examined the impact of fiscal deficit and a disaggregated government expenditure on economic growth in Nigeria from 1970-2011. It is discovered that fiscal expansion has a strong and positive impact on the national output because 1 percentage increase in fiscal expansion increases growth rate of the economy by 10%. In the same vein, capital expenditure is significant and positively related to national output, as its 10% increase, expands the growth rate of the economy by 62.21%. However, government recurrent expenditure has no significant impact on the economy. Balanced deficit and capital expenditure are growth inducing. **Rakesh B Bhoir, Sanjay R Dayre (2015**) analyzed the effectiveness of fiscal deficit on Indian economic growth from 1991-92 to 2013-14 They examined that after the economic crisis of the early 1990 fiscal deficit has become a center issue for discussion. The study found the absence of significant relationship between fiscal deficit and GDP. It suggests enriching the efficacy of human capital and physical capital by spending deficit on productive sector can enhance per capita income and growth rate also. **Sonika Gupta, Prof. Kalpana Singh (2016**) introduced the tendency of fiscal deficit in India by using time series data from 1980-81 to 2015-2016. It is found that from 1980-81 to 2002-03, deficit was accelerated to untenable level during the crisis which induced the government to adopt some economic measures to reform

the deficit at more rational levels and balance it. Government has reduced deficit steadily since 2003-04 through fiscal policy reforms.**Amrutha, H.R**. **2017** examined the association between fiscal deficit and economic growth in India by using time period from 1980-81 to 2013-2014. Johansen methodology found one directional relation among economic variables. It reflects that gross domestic product falls by 0.618609 due to 1% rise in fiscal deficit. It indicates inverse relationship between fiscal deficit and growth in long run. It showed no relation in short run by using vector error correction model. This study suggests reducing fiscal deficit in order to achieve economic growth and development.

3. Objectives: -

1) To examine the trend of fiscal deficit in India.
2) To examine the nature of fiscal deficit.

4. Data Sources: -

The study is entirely based on secondary data. Relevant data for the study are obtained from Data base of Statistics on Indian Economy from Reserve Bank of India, Economic Survey of India, Relevant articles, economic journals, textbook from libraries etc.

5. Research Methodology: -

For the completion of this paper, we have employed statistical tools. The data have been classified and tabulated using Microsoft Excel software. The paper attempts to study the nature of fiscal deficit and its impact on economic growth. Chart and tables have been used to elaborate the data. The used data in this research work are purely secondary.

6. Trends in Fiscal Deficit in India: -

In recent past, fiscal deficit have been emerged as an important issue of concern for the economic growth of developing countries. Fiscal deficit is an economic phenomenon where total expenditure of government surpasses the total revenue of that government.It has long term impact on economy of a country and development.It has been found that many developing countries incur fiscal deficit policy as a developmental strategy to improve standard of living by increasing economic growth. The important thing is to maintain the fiscal deficit for the sustainable growth so that the welfare of people and development of the country can be done together.

The following figure-1 traces the trends in deficits of Indian central government during 1991-92 to 2016-17. The fiscal deficit of the Central government as percentage to gross domestic product rose from 5.39% of GDP in 1991-92 to the peak of 6.76% in 1993-94. Similarly, the revenue deficit also increased to 3.67 % of GDP in the year 1993-94. The main reason behind it is that it led the accretion of debt which eventually leads to higher rate of interest, adversely results in lower growth of public investment and social expenditure. The very next year it declined to 5.52 percent of gross domestic product due to government efforts. Further during 2001-02

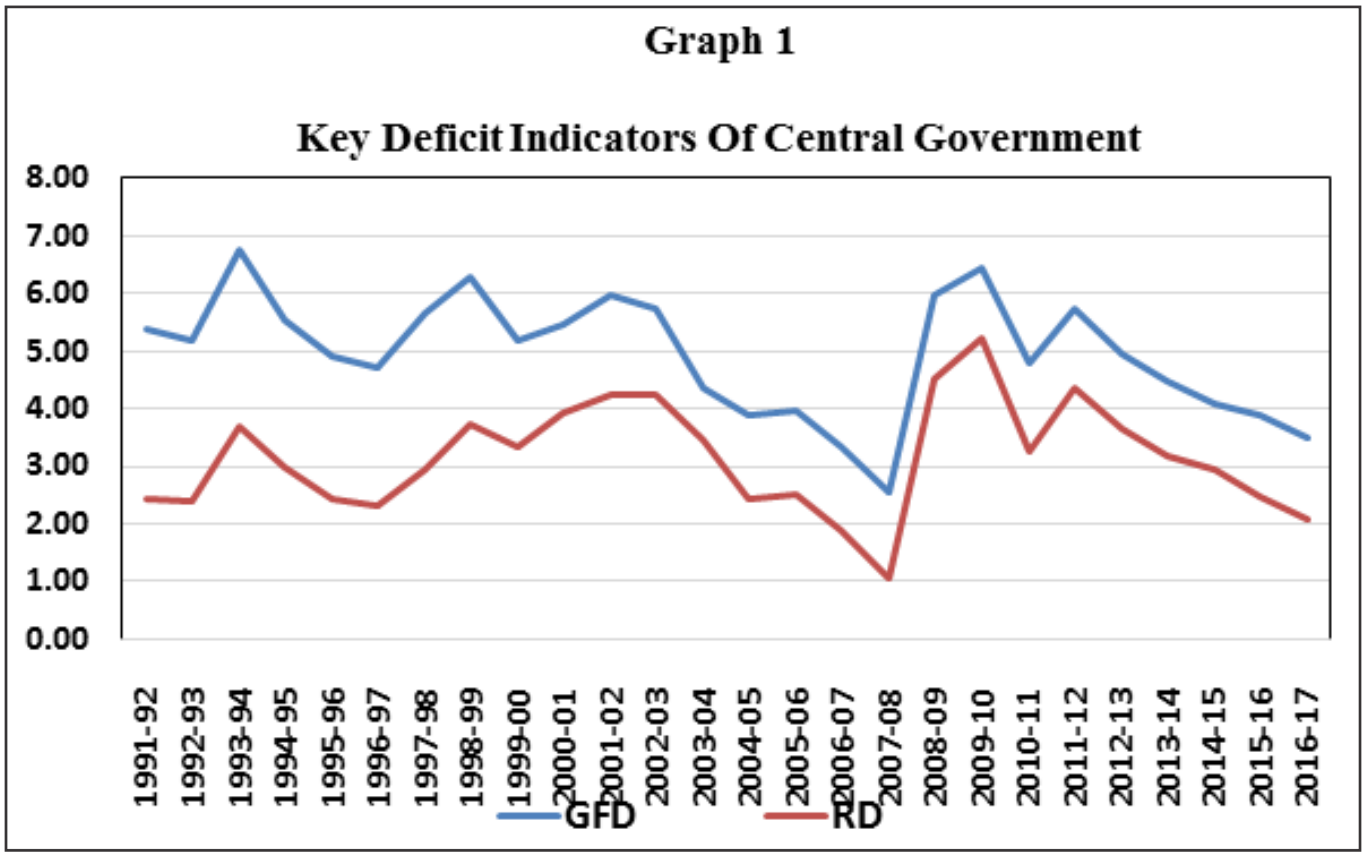
insufficient collection from both direct and indirect taxes was the reason behind fiscal deficit at the level of 5.98 percent of GDP. The burden of high level of fiscal deficit was realized by government, it was felt mandatory to further review expenditure sectors under ministries and discover areas reduction in expenditure with increasing sources of revenue of government is possible. The Indian government introduced Fiscal Responsibility and Budget Management Act with the objective of fiscal stability and transparency of government.

Table : 1 Key Deficit Indicators of Central Government (As percentage to GDP)

Year	GFD	RD
1991-92	5.39	2.41
1992-93	5.19	2.40
1993-94	6.76	3.67
1994-95	5.52	2.97
1995-96	4.91	2.42
1996-97	4.70	2.30
1997-98	5.66	2.95
1998-99	6.29	3.71
1999-00	5.18	3.34
2000-01	5.46	3.91
2001-02	5.98	4.25
2002-03	5.72	4.25
2003-04	4.34	3.46
2004-05	3.88	2.42
2005-06	3.96	2.50
2006-07	3.32	1.87
2007-08	2.54	1.05
2008-09	5.99	4.50
2009-10	6.46	5.23
2010-11	4.80	3.24
2011-12	5.73	4.38
2012-13	4.93	3.66
2013-14	4.48	3.18
2014-15	4.10	2.93
2015-16	3.87	2.49
2016-17	3.49	2.06

SOURCE : Computed by Author

There was a significant decline in revenue deficit from 3.46% in 2003-04 to 2.42% in 2004-05. On the other side fiscal deficit fell down from 4.34% in 2003-04 to 3.88% in 2004-05. In the year 2007-08 fiscal deficit reached at lowest level at 2.54% of GDP. After reaching at lowest level it suddenly increased and further remained increasing. Fiscal deficit increased from 2.54 per in 2007-08 to 5.99 pert in 2008-09. There was a hike in fiscal deficit at the level of 6.46 per of GDP in 2009-10 after the enactment of FRBM act 2003. The major reasons were government allowances for rural schemes, augmentation of social security



schemes under National Rural Employment Guaranty act, sixth pay commission award and increase in subsidies for food, fertilizers and petroleum.

Nevertheless, the aim of government has been to demote fiscal deficit and bring it down to 3 percent of GDP. Indian government were seeking measures to consolidate deficit and this resulted in significant decrease in deficits of central government. After 2011-12 Indian economy witnessed continuously decline in fiscal deficit. In 2011-12 gross fiscal deficit was 5.73 percent of GDP and revenue deficit was 4.38 percent of GDP. Fiscal deficit decreased to 4.93 percent and 4.48 percent in 2012-13 and 2013-14 respectively. Further reduced to 4.10 percent in 2014-15. Despite huge decline in non-debt capital receipts government achieved the target of less fiscal deficit because of increase in gross tax revenue mainly from excise taxes on petroleum.

This led to decline fiscal deficit from 3.87 percent of GDP in 2015-16 to 3.49 percent of GDP in 2016-17 despite shortfall in non-tax revenue.

TABLE 2 : Share of GFD-RD in Gross Fiscal Deficit (₹ Crore)

Year	Gross fiscal deficit	Revenue deficit	GFD-RD	GFD-RD as % of GFD
1991-92	36325	16261	20064	55.23
1992-93	40173	18574	21599	53.76
1993-94	60257	32716	27541	45.71
1994-95	57703	31029	26674	46.23
1995-96	60243	29731	30512	50.65
1996-97	66733	32654	34079	51.07
1997-98	88937	46449	42488	47.77
1998-99	113349	66976	46373	40.91
1999-00	104716	67596	37120	35.45
2000-01	118816	85234	33582	28.26
2001-02	140955	100162	40793	28.94
2002-03	145072	107879	37193	25.64
2003-04	123273	98261	25012	20.29
2004-05	125794	78338	47456	37.73
2005-06	146435	92300	54135	36.97
2006-07	142573	80222	62351	43.73
2007-08	126912	52569	74343	58.58
2008-09	336992	253539	83453	24.76
2009-10	418482	338998	79484	18.99
2010-11	373591	252252	121339	32.48
2011-12	515990	394348	121642	23.57
2012-13	490190	364282	125908	25.69
2013-14	502858	357048	145810	29.00
2014-15	510725	365519	145206	28.43
2015-16	532791	342736	190055	35.67
2016-17	535618	316381	219237	40.93

SOURCE : Computed by Author

Table 2 shows difference between gross fiscal deficit and revenue deficit as percentage to gross fiscal deficit. It shows declining trend continuously over the years. In 1991-92, it was 55.23 percent of GFD which decreased to 53.76 percent and 45.71 percent in 1992-93 and 1993-94 respectively. It increased to 51.07 percent in 1996-97 which reduced next year and reached to 47.77 percent. After reaching 20.29 percent of GFD in 2003-04, it rose to 37.73 percent in 2004-05. It was minimum as 18.99 percent in 2009-10 after that it increased to 32.48 percent in 2010-11. It was 35.67 percent and 40.93 percent in the year 2015-16 and 2016-17 respectively.

7. Conclusion: -

This study traced the major tendency of fiscal deficit in India since 1991-92 to 2016-17. By 1990-91 the economic condition of India was very miserable. After the economic crisis of 1991, government adopted New Economic Policies with liberalization and various fiscal reforms. These efforts of government resulted in reduction of fiscal deficit to some extent. Then again Indian government enacted FRBM act to consolidate fiscal discipline by making fiscal system and budget management of government more transparent. The successful achievement of this act can be seen in the following years when deficit tended to decline over the years. There was a significant decline in fiscal deficit from 4.34% in 2003-04 to 3.88% in 2004-05. Thus government continuously made efforts to reduce fiscal deficit and enhance the growth of country. This led to decline fiscal deficit from 5.39 % of GDP in 1991-92 to 3.49 % of GDP in 2016-17. Fiscal deficit has both negative and sometimes positive impact on economic growth this paper supports that fiscal deficit should be balance and the fiscal deficit amount should be invested in capital formation purpose and in enhancing productivity of both human capital and physical capital. This paper also suggests that balanced fiscal deficit may be good for the overall economic growth of developing countries if it is used in productive sectors.

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World Bank Report on Ease of Doing Business, 2019 (INDIA)

*Prof. C.S. Barla

Preamble

The ease of doing business refers to an index created by World Bank to ascertain the competence of member countries to promote business and run it proficiently. Different countries have different forms of economic, social and political systems. There are countries where starting and running business is very easy, while in others it may be a difficult venture.

Scholars associated with the World Bank studied the conditions which determine the evolution of a business across different countries. It eventually culminated in the publication of a report entitled 'Doing Business in the year 2011. Since then it has been an annual feature. Presently, such report presents ranking of 190 countries. Presently, the World Bank publishes annually its report for all member countries.

World Bank Report on Ease of Doing Business, October 2019 (Say, 2020)

The World Bank uses 10 indicators and prepares each country's rank in reference to each such indicator. Table I presents such indicators and their rank for India for 2017, 2018, 2019 and 2020.In 2017, India's overall rank was 130, but as shown below, over the past years, there has been a significant improvement in policies introduced by Government of India, as well by state governments, which has made business easier, and pro-active. Our rank in 2020 report was 63 which is 67 point jump over 2017.

Table I

Indicators for Doing Business and their rank for India for 2018 and 2019

S. No.	Indicator	India's Rank			
		2017	2018	2019	2020
1.	Starting Business	155	156	137	136
2.	Dealing with construction permits	185	181	52	27
3.	Registering property	138	154	166	154

*Retd. Prof .Rajasthan University, Jaipur

4.	Getting electricity	26	29	24	22
5.	Getting credit	44	29	22	25
6.	Protecting minority investors	13	4	7	13
7.	Paying taxes	172	119	121	115
8.	Trading across borders	143	146	80	68
9.	Enforcing contracts	172	164	163	163
10.	Resolving insolvency	136	103	108	52
	Overall Rank	**130**	**100**	**77**	**63**

Source : The World Bank reports on Ease of Doing Business for four years.

In 2017, India's overall rank was 130, but as shown below, over the past years, there has been a significant improvement in policies introduced by Government of India, as well by state governments, which has made business easier, and pro-active. Our rank in 2020 report was 63 which is 67 point jump over 2017.

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One can draw the following inferences from Table I.

1. There is a 67 point shift in India's rank in four years, while over one year, India's rank has improved by 14 points.
2. There has been a considerable improvement in getting construction permits, protecting the rights of minority investors, getting electricity and getting credit.
3. In respect of international trade, number of requirements of documents, time and cost have shown an improvement, yet a lot more improvement is needed.
4. Payment of taxes continues to be a major issue for business world, as procedures and formalities are still not friendly.
5. The biggest impediment for businessmen in India emanates from enforcement of contracts and settlement of disputes, pertaining to insolvency. It may be noted that about two years ago, Government of India had pronounced Insolvency and Bankruptcy Code (IBC) for resolving issues related to weak companies which are on the verge of bankruptcy.

Factors which contributed to a major shift in India's rank in Doing Business

Over the past few years in the policy regime, people of India witnessed the following improvements:

1. Reforms and friendly regulations that help business world. (Mudra Bank, Start Ups, Make in India).
2. Introduction of GST in lieu of all indirect taxes. Rationalization of GST during the past two years.
3. Infrastructure network across India. During the past few years.
4. Programmes like start up India, skill development etc.
5. Better treatment with exporters.
6. Insolvency and Bankruptcy Code (IBC) for weak entities in business.

It needs to be mentioned that India and China have been among the 10 top improvers over the past few years.

Problems which still persist in Doing Business

1. **Starting Business –** Revenue authorities down to lowest level - taluk level or at the level of municipal bodies work very slowly in clearing the title of an entrepreneur.
2. Relevant authorities generally grant construction permits with inordinate delay, some times after 10 to 12 months and that too, after lot of harassment.
3. Only 4 to 5 percent of people pay direct tax in India. The tax-buoyancy rate for income tax is just 1.2.
4. Legal process in India is too complex and time consuming for swiftly enforcing contracts.
5. Lengthy procedures in clearing applications under IBC-continue. (notwithstanding 2 yars of IBC).

In December, 2019, Indian network consisted of following roads : Express ways 1000 km, National Highways 79243 kms, State highways 1.31 lakh km and village roads 12.41 lakh km.

6. Lack of business-friendly approach of government functionaries.
7. Delay in decision making at all levels, thus causing a hike in project cost.

It is suspected that due to delay in approval as also in implementation of infrastructure projects alone, during the past three years, project costs had increased by Rs. 3.86 lakh crores.
What we now need is to short-circuit our procedures, and adopt more pro-active policies to suit our prospective investors.

Then, getting construction permit and approval of plan is still very difficult in view of the bureaucratic attitude of our municipal corporations across the country. Later, registration of property is another road-block for a business firm.

While getting credit and electricity is easy in India, lot of documentation in import and export trade is painfull. Finally, tax personnel of India had not been friendly to our businessmen.
Lastly, IBC notwithstanding, the procedures continue to be cumbersome for firms. The speed continues to be slow, like a tortoise.

Economic scenario in India is improving, yet for a faster growth rate we have to go a long way, perhaps, as Jack Maa, founder of China's big empire like Ali Baba recently said, we have to adopt 996 work cultures.

Table 3

Ease of Doing Business : Ranking of States / UTs in 2016, 2017 and 2018

S.No.	State	Rank		
		2016	2017	July 2018
1.	Andhra Pradesh	1	1	1
2.	Telangana	1	2	2
3.	Haryana	6	3	3
4.	Jharkhand	7	4	4
5.	Gujarat	3	5	5
6.	Chandigarh	4	6	6
7.	Madhya Pradesh	5	7	7
8.	Karnataka	13	8	8
9.	Rajasthan	8	9	9
10.	West Bengal	15	10	10

State wise Ranking

For the past few years, the Department of Industrial Policy Promotion (DIPP), Govt. of India, has been publishing annually a report on the performance of states with respect to ease of business.

It needs to be made clear that the DIPP generally advises state governments, *inter alia*, to facilitate industrial development by simplifying procedures so as to promote industrial development at their levels. Andhra Pradesh, Telangana, Haryana and Gujarat have taken lead in these initiatives, albeit in other states also single window clearance scheme has been started.

Table II presents state-wise ranks for past three years in respect of ease of doing business. It is evident that Andhra Pradesh, Telangana, Haryana, Gujarat and Jharkhand have maintained their lead, largely due to their swift reforms to woo investors. *Thus, at the state level, ease of doing business largely depends on the vision and positive policies pursued by the concerned* state government.

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