

# International Journal of Academic Research in Education and Review



**Volume 3, Number 10**

<http://www.academicresearchjournals.org/IJARER/Index.htm>

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# **Staffs' perception towards the implementation of business process re-engineering (BPR): The case of Mekelle University**

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Accepted 17 November 2015

The purpose of this study was to assess staffs' perception regarding BPR implementation at MU. Specifically, it was intended to explore the staffs' perceived awareness of BPR, perceived potential benefits of BPR, perceived values of BPR measurement and reward systems, perceived level of importance of BPR success factors, and finally the staffs' overall satisfaction with the new world of work. To address these research problems, a quantitative descriptive survey method was employed. Samples were selected using simple random sampling preceded with stratified sampling technique. This was done to maintain higher probability of gathering a wide range of views from the participants. As a result, 156 samples out of 2450 target population were taken. The data were collected using primarily close-ended questionnaire which was validated through suggestions of experts and its reliability was maintained by conducting pilot study and computing Cronbach's alpha coefficient. The data collected were analyzed using descriptive statistics: percentage, mean, and standard deviation. Finally, the result of the analysis was found to reveal that: Favorable awareness of BPR implementation regarding its nature, requirement, and purpose; BPR potential benefits were observed to unfavorably be perceived, i.e., low level of perception is observed regarding the potential benefits of BPR; BPR measurement and reward system was perceived as valuable by many of the participants; Higher number of participants believed on the selected BPR success factors to be important at MU; and finally Low satisfaction level with the new work environment was observed among the participants.

**Key words:** Perception, staff, BPR, Mekelle University.

**Cite This Article As:** Abay A (2015). Staffs' perception towards the implementation of business process re-engineering (BPR): The case of Mekelle University. *Inter. J. Acad. Res. Educ. Rev.* 3(10): 261-281

## **INTRODUCTION**

### **Background of the study**

Business process reengineering (BPR) evolved from the experiences of the US-based companies in the 1980s. These companies radically changed their processes by applying modern information technology innovatively in pursuit of change management and improved

performance. Since its inception three decades ago, BPR has become a buzz word to bring about innovative initiatives and cultural changes in the business world. The rise of BPR is attributed to the needs of companies to confront old ways of organizing-division of labor, which does not work anymore, so as to address the flexible needs of customers and achieve competitive advantages

in the global marketplace (Hammer and Champy, 1993).

Moreover, as indicated by Hammer, Champy, and Johnson, 1993; Harrington 1991; Davenport 1990, BPR emerges with the following central tenets: radical change and assumption challenging, process and goal orientation, organizational re-structuring, radical improvement in performance, and the exploitation of enabling technology, particularly information technology. In addition, BPR has been found to enable organizations to take advantage of the more highly developed education and capabilities of the staffs employed (Beckford, 1998). It is found that a number of interrelated pressures: expansion of higher education, changing student profile, pressures from industry, increased competition, and information technology (IT) capability have created the need for change in Higher Educational Institutions (HEIs) (Armstrong *et al.*, 1997; Ford *et al.*, 1997; Slowey, 1995). As a result, the adoption of such management tool, BPR, has been identified as a means by which universities can meet these pressures for change and maintain, in common with other public institutions, the three 'Es' of efficiency, effectiveness and economy (Penrod and Dolence, 1992; Dougherty, 1994; Casey, 1995).

Following the introduction of BPR, assessments of reengineering practices in the west have been reported as consisting of both success and failure stories (Hammer and Champy, 1993; Linden, 1994). Accordingly, top management commitment was believed to be the most important factor for successful BPR efforts (Johnson and Davenport, 1993). They argue that BPR never happen bottom-up and re-engineered processes alone will not change the way people work. Besides, Champy and Arnouldse (1992) have added that the role, vision, attitude, skill or knowledge of leaders is necessary for the success of BPR. On the other hand, the main reason for the high rate of failure of BPR programmes was attributed to BPR's failure to successfully take account of people in the reengineering process (Grint, 1995). In addition, as indicated by Geus (1997), private companies that were successful revealed that their success has been built on recognition that people are an organization's main asset, which encourage active involvement of employees.

Bashein and her associates (1994) suggest more concrete success factors of successful BPR projects. These include: sound financial condition, an appropriate number of BPR projects under way, and information system and human resource specialist involvement. Johnson (1993) added that Sharing information and emphasizing the employee concerns is important to the success of BPR since this can help minimize resistance and increase commitment. Similarly, Hammer and Champy (1993) have also mentioned some failure factors like failure to have a process perspective, a fixed process which is not flexible enough to be responsive to the needs and requirements, and not involving employees

(i.e. bottom-up) in decision making, assigning someone who does not understand BPR, technology limitations, designing a project which focus on cost reduction and downsizing, having a weak team, and problems with communication.

Moreover, as to Johnson (1992), Re-engineering was criticized for failing to adequately link organizational culture with business culture-which is the core set of beliefs and attitudes held by employees. This was also supplemented by the ideas of Martinsons and Hempel (1998) that argues that the ability to adopt new management tool depends on various social, economic, and political factors. Among the most important of these factors is the existing culture - a deep and deterministic aspect of human life.

From the previously reported BPR impact assessment results, effective organizational change is likely to be achieved when it is in line with the organizational "paradigm" and the cultural, social and political norms of the organization. Here, the problem begins when the change is radical which attempts to take people away from the "core beliefs". Moreover, it was found that the situation is less problematic in companies, where the executive define the mission and everyone is expected to work towards that mission; but, the mission of HEIs is complicated by a tradition of academic freedom. Taylor (1995) highlighted that a university is a highly complex organization where there are many different ideas about what the university is trying to achieve. However, to this effect, Smith (2003) suggested the importance of assessing individual's perception of any change attempt by stating that people are the real source of, and the vehicle for, change because they are the ones who will either embrace or resist change. Furthermore, from the research done by Barrington and Oblich (1995), it was noted that the people issue rather than the technology issue is important to be dealt with and managed in order to make the change effort successful.

Since most recent (towards the end of 1990s) reengineering as a management tool extended to developing nations' public sector reform efforts. According to Reyes (1998), reengineering have been used in various developing countries as an expression of continuing initiatives to redefine administrative values, philosophy, methods and systems of government bureaucracies.

As it was indicated in the research memorandum on the Ethiopian civil service reform by Getachew and Richard (2006), BPR has emerged as a key management initiative, particularly in those ministries that interface with the private sector, following the launch of Public Sector Capacity Building Support Program in 2001 as the country strives for the fundamental of poverty reduction and democracy development including responsive service delivery, citizen empowerment, and good governance. From then on wards, formally, little is known



about the contribution and the challenges that the new project had brought and faced; but, it is reported that some organizations brought incremental change while most failed to implement BPR project appropriately (Belete, 2007). BPR is introduced in to the Ethiopian civil service organizations with the intention of ensuring the primary mission of the civil service: building good governance, democracy, economic development and improves the citizen's living standard (Ministry of Capacity Building, 2007; cited in Belete, 2007). It is also believed to be an important prerequisite to increase the potential capabilities of institutions and individuals within the provision of efficient public services along with combating the malpractices and poor efficiencies. In addition, it can aid in the attainment of development goals that the government set to reduce poverty and pull the country towards the middle income countries. Such fundamental trends of changes serve as catalysts for positive changes and raise the standards of accountability and productivity in the country.

Overall, the Ethiopian public organization transformation effort through civil service reform program is still ongoing undertaking since 1996. The reason to initiate the reform were attributed to the deficiency in the public sector systems and performance, the traditional management practices coupled with its culture, as well as traditional bureaucracy established over years were found to be incompatible to the needs of the policy environment of the country (<http://www.ethiopiaemb.org.cn/bulletin/05-01-02.htm>). Currently, in Ethiopia, According to the report of the Ethiopian news agency, *walta* reported by Getaneh Kibret on May 4, 2009, referring the Ministry of Capacity Building, many of the government-owned organizations have been processing to execute BPR since the past few years.

As one can understand from the above presentation of research findings of the general nature, success and failure factors of BPR, clearly, these imply the need to give emphasis to the human and organizational context of the institution while implementing BPR, more particularly in higher educational institutions. This is because, as indicated in Martinsons (2004), different organizations are found to experience change differently due to their variations in the prevailing organizational culture. Furthermore, it is important, other factors being constant, to rely on how the staffs or participants view or understand the change in order to achieve success by establishing consensus among practitioners. There exists a gap in practicing BPR implementations on the basis of staffs' perception of the change within the specific organizational context. Little is also known about how to implement BPR in universities generally, and particularly in relation to the organizational context and staffs' perspectives (Allen and Kern, 2001; Beekhuyzen, Good and Nielsen, 2002; Von Hellenes *et al.*, 2005). Similarly, in

Ethiopia, since it is a new concept, there are no previously well established research findings regarding the success and failure factors of BPR in the public institutions in general, and higher institutions in particular. So, to enable the great potential that BPR has for increasing productivity through reduced process time and cost, improved quality, and greater customer satisfaction, there should be a study in order to make its implementation and management in the best interest of customers, employees, and the organization. This could be possibly obtained through the exploration of staff's perception of BPR implementation within the organizational context. By now, as far as the information the researcher has, among the Ethiopian higher educational institutions, Mekelle University has shown a far progress in doing organizational transformation through the introduction of BPR. Consequently, the research will be bound to this University since the researcher believes that better and reliable information can be obtained from employees who experience change for relatively longer period of time.

As alluded to the aforementioned, considerable BPR literature exists on issues relating to the adoption of BPR. However, since people are found to be the primary agents for organizational transformation, it is imperative to know the employees perception regarding the changes. This is because, as indicated by Ashford (1998), employees' perception of a change matters their commitment and job satisfaction which in turn affects their contribution in the change endeavors. On the other hand, the issue of culture becomes an important factor for BPR, which was further emphasized by Peppard and Fitzgerald (1997) who examined the transfer of culturally grounded management techniques, namely BPR. Employees as the target of change are central to the success of the change efforts because their attitudes, skills, motivations and basic knowledge form a significant component of the environment in which change is to be attempted (Smith, 2005). Similarly, Lewis *et al.* (2005) highlighted that Perception influences employees' attitudes, behavior and intention in facing the impending change. This implies the importance of maintaining a clear understanding of the prevailing practice of BPR within the University context through the assessment of the staffs' perception regarding the organizational transformation in order to intervene appropriately and maximize the realization of BPR objectives.

As many of the other Ethiopian higher educational institutions, Mekelle University has a golden mission and objective towards the attainment of the long run socio-economic development goals of the country in general and satisfying the specific societal and community level capacity building needs in particular. As it is noted by MU' reform team (institutional transformation team), the university is diving towards center of excellence in academic, research and community service areas. To

this effect, by using the new management technique-BPR, MU has introduced a new working environment, of course, after identifying the existing core problems. However, the University is conducting BPR without having domestic research findings concerning BPR applicability to the Ethiopian business environment in general, a business culture which is sufficiently different from the American, in order to justify this undertaking organizational transformation. This shows deficiency or gap in the current research and practices regarding the implementation of BPR in the higher education field generally and at MU in particular.

It is, therefore, necessary to have a knowledge based guidelines to ensure that higher education institutions can carefully implement and manage the institutional impact which accompany this fundamental and radical change within the organization. Hence, this research focuses on examining BPR implementation issues from the perception of staffs at MU. This will further benefit future implementation and upgrade of BPR to carefully manage the prevailing contextual issues as perceived by the staffs. Thus, the contribution to knowledge of this research will be to provide information regarding the real experience of BPR at the University.

## STATEMENT OF THE PROBLEM

The purpose of this study is to explore MU's staffs' perceptions towards the implementation of BPR within the organizational setting. Specifically, it is intended to identify the staffs' perceived awareness of BPR, Perceived benefits of BPR, perceived values of BPR measurement and reward system, perceived importance of selected BPR success factors, and their overall satisfaction with the new working environment. A year ago, it was the researcher's first experience to participate in a training program concerning concepts, strategies, and tools of BPR implementation, which really impressed him to question the applicability of BPR in the Ethiopian higher educational institutions which have lived long with the culture of academic freedom and bounded functional interest of employees. As a result of these existing situations, the organization would likely to conflict with the new paradigm shift, which, mainly focuses on the essence of team work and process oriented organizational structures that cross functional boundaries of the organization. To this effect, in this study it is proposed that effective implementation of BPR in the Ethiopian Universities, specifically at MU, requires particular consideration of organizational influence related to their context through the perception of staffs involved in the implementation.

As it is documented in the Ministry of capacity building of the Federal Democratic Republic of Ethiopia, currently, the country is striving for building good governance,

democracy, economic development and improving the citizen's living standard. It is also indicated that in the last few years of experience in building democracy and economic development was seen as promising. And now ahead the government is seriously in charged to ensure good governance, democracy, and socioeconomic development. In so doing, transforming the civil service system, which is believed to be one of the primary and key tools in achieving these objectives, is the primary issue that the government has been undertaking. This is because it is believed that living with the old bureaucratic system of the civil service will not lead the effort to be fruitful. It is also believed that BPR will have a great potential in increasing productivity, improve quality, and increase customer satisfaction which will ultimately lead to the realization of the primary mission of the Ethiopian civil service. As a result, this reality has brought about the need for the introduction of Business Process reengineering (BPR) in to the Ethiopian civil service organizations.

Realizing this fact, currently, Mekelle University is introducing BPR in to its two core processes and the support process. Accordingly, the institutional transformation team has identified the rationale for the introduction of BPR in to MU as: lack of University autonomy, highly centralized internal system, lack of shared vision with the university community, non-empowered and task specific frontline employees, lagging infrastructures and capacity expansion to meet increased demand for higher education, and poor team work and inappropriate values and beliefs. At the same time, although BPR is believed to be an appropriate management endeavor to the realization of the civil service development agenda, MU is implementing the reform paradigm-BPR without having adequate research findings concerning the applicability of BPR in the Ethiopian higher education institutions (HEIs) due to the fact that BPR is a new experience to public institutions in general and HEIs in particular. Clearly, these may create a big challenge in the organizational transformation mainly for two reasons: First, although it is common for people to experience resistance when confronted with a certain change, but here the challenge is two fold for the change paradigm is radical-which results a change in employees status quo, and even may result in employees reduction, resistance will be higher. Second, the need for trained man power, funding, infrastructures development, and the need for demotic organizations for benchmarking could be a challenge or hinder the achievement of BPR goals.

In fact, many literatures suggested that people are one of the key factors supporting BPR implementation. Specifically, it is noted that successful implementation of BPR is supported by: Commitment and visible involvement of top managements, team work approach adopted by everybody, and participation of all staffs within the organization. This has clearly placed the importance of



employees at all levels in the organization to support the initiatives above others in order to ensure the success of its implementation. Similarly, it is found that employees' engagement or participation is highly relied on the perception they hold about the change that they are facing. Thus, understanding employees' perception towards the implementation of the change would be able to facilitate smooth adoption of such management tool; since human resources are the most valuable asset held by any higher learning institutions. As such, priority should be given to gauge the staffs' perception regarding the implementation of BPR by the organization; since such organizational wide initiative demands everybody in the organization to have a shared organizational vision, and mission by holding the same and appropriate values and beliefs.

Hence, it will be helpful to explore the staffs' perception towards BPR implementation within the context of MU. This is because, establishing an understanding of how the participants experience and perceive the change and introducing appropriate confrontation is a prime importance for making staffs fully engaged, motivated, committed and thereby ensures the likelihood of successful implementation of the change-BPR. Therefore, this study is intended to determine the perceptions held by MU's Staffs regarding BPR implementation which in turn is believed to provide valuable input to the successful implementation of BPR in the University.

### Research questions

The foregoing research aims will be addressed by the following research questions:

1. Do MU's staffs acquainted with the appropriate information about the nature, requirement, and purpose of BPR implementation at the University?
2. Do MU's staffs believe that the adoption of BPR will benefit them and the University as well?
3. Are the measurement and reward systems of BPR valued as important by the MU's staffs?
4. What is the perceived level of importance of BPR success factors at MU?
5. What is MU's staffs level of satisfaction with the new world of work?

### OBJECTIVES OF THE STUDY

The major objective of this study is to assess MU's staffs' perceptions regarding the implementation of BPR at their organization. Specifically, this study is intended to:

- i. Identify MU's staffs' perceived awareness of BPR implementation.

- ii. Explore MU's staffs' perceived level of benefits the University and the staffs can gain as a result of BPR implementation.
- iii. Judge the value of measurement and reward systems of BPR as perceived by the staffs.
- iv. Identify the perceived level of importance of BPR success factors at MU.
- v. Examine the overall staffs' satisfaction regarding the changes encountered as a result of BPR implementation.
- vi. Provide research based information to interested researchers in the area.

### Significance of the study

The result of this study is expected to have a paramount input to different bodies concerning MU's staffs' perceptions regarding BPR implementation. Specifically, this study is significant due to the following reasons:

- i. It will help the management body of the University to get insight in to the existing or the real practice of BPR. Then, based on this information the University management will be able to develop appropriate and relevant strategies either to reinforce a promising progress or to take improvement measures so as to enhance the realization of BPR goals at MU.
- ii. It will provide the University staff with the opportunity to get necessary support and feedback, understand BPR realities at MU, and then smoothly discharge their contributions based on the directions of the University's reform plan which ultimately lead them realize and gain BPR benefits.
- iii. It will provide the MoE with information about BPR implementation Realities with in the University context and make necessary provisions to MU and to other Universities that are preparing to undertake the implementation of BPR.
- iv. The results from this study will provide an additional insight in to the issues impacting on BPR implementation in universities. In addition, the results from this study may be used for developing a practical set of guidelines that may supplement the MU's BPR working plan. Furthermore, the findings from this study will give an impetus for conducting similar research at other higher educational institutions.

### Delimitation or scope of the studies

This study is delimited to Mekelle University due to the following reasons.

- i. At the time of this study, MU was noted as a pioneer in introducing BPR among the known Universities of the country. Hence, the researcher believed that conducting an assessment of staffs' perception where the change is more experienced by the staffs will yield an acceptable image of the change endeavors with the staffs' perspective. In addition, since the researcher is familiar with the culture of the town where the University is found, it will not be problematic for him to get access to information during his stay in the field.
- ii. Due to time and financial constraint, and geographical disparities among the existing Universities. Moreover, in order for the study to be manageable the study was confined with the University's staffs of 156 sample size. To select the sample population, stratified sampling followed by simple random sampling technique was employed. This was done in order to maintain the proportion of participants from different units such as colleges, and staffs (academic and support) which, the researcher believes, allows to get a range of information from the respondents.

Primarily, close-ended questionnaire was employed to collect the data for the study aims to assess the perception of staffs across a range of constructs from relatively large sample size which, in this case, suites to the use of survey method. Finally, descriptive statistics: percentage, mean, and standard deviation accompanied with appropriate interpretation and discussion were employed to analyze the responses obtained.

### LIMITATION OF THE STUDY

In going through this research the researcher has encountered and identified the following points which should have been overcome to be the major limitations of this study. Accordingly, the first and major limitation was lack of domestic research findings and available literatures concerning the problem under investigation. The second limitation was that since the study was confined only to one University, making inference to other Universities will not be appropriate, i.e., generalization is limited. The third limitation was also related to the inconvenience to use relatively larger sample size so as to maximize the representativeness of the samples and, as a result, minimize generalization errors. Finally, lack of adequate finance support was found as a major contributing factor, more specifically, to the second and third limitations mentioned above.

### Definition of key terms

The terminologies of most commonly used words in this study so as to avoid ambiguity among readers were

presented as thus:

- i. Business Process Re-engineering (BPR) - is defined as the fundamental rethinking and radical redesign of business process to achieve dramatic improvement in contemporary measure of performance such as cost, quality, and service and speed (Hammer and Champy, 1993).
- ii. Perception - is an idea or opinion, belief or an image that an individual has as a result of how he/she views or understands something (i.e., object, process, change, event ...).
- iii. Staff- refers to full time employees of the University (both academic and support)

### RESEARCH METHODS

As it was mentioned in the introduction part of this paper, the primary focus of this study was to assess the perceptions of Mekelle University's (MU) staffs regarding BPR implementation. More specifically, this study was intended to assess the staffs' perceived awareness BPR, perceived benefits of BPR, perceived value of BPR measurement and reward systems, perceived importance of BPR success factors, and over all staffs' satisfaction as a result of BPR implementation at MU.

#### Research design

Since the aim of this research was to assess the perception of staffs regarding BPR implementation from relatively large sample size, the researcher believed that descriptive survey research method was appropriate. As a result, quantitative descriptive survey method was used.

#### Target population

This study was conducted at Mekelle University (MU). The target population of this study was MU's both academic and support staffs which accounts about 2450.

#### Sample selection procedure

Participants for the research were selected from the target population- MU's academic and support staffs. Colleges were used as a base for selecting the sample population of the study that is to mean stratified sampling technique was employed. This was done to maintain the proportion of participants from each college. Then, the samples were randomly selected from each college; of course, consideration was given to the proportion of academic and support staffs within each colleges. This was also

done, although the primary purpose of this study was not to investigate perception differences among colleges, and between support and academic staffs, to ensure collecting a range of views from each of the above categories, which may consist of different sub-cultures, in order to strengthen the representativeness of the samples to the target population. Samples were not include new employees (less than 6 months of work experience at MU).

### **Data gathering Instruments**

To gather the data from the participants, questionnaire was used. Due to the dearth of empirical study conducted on this matter, the researcher could not successfully find any suitable instruments to be used in the local context. Therefore, based on the review of literatures on BPR implementations, the instruments for the data collection were developed by the researcher. But, items for the construct staffs' overall satisfaction with the new work environment were adopted from the works of Brooke *et al.* (1988) with considerable and necessary amendments. Items in the questionnaire were primarily close-ended and are prepared in a continuous scale. Respondents were also given an opportunity to give more information by providing them with open-ended items to constructs where the researcher believes necessary. The questionnaire consists of five major parts corresponding to each of the constructs (variables). Items for the awareness construct consist of a three-point Likert's type scale where as items for the rest constructs are prepared on a five-point Likert's type scale. Table 1

To minimize the effect of communication barrier, items in the scale were written in English language since the participants are found to be at least diploma holders. Moreover, the researcher believe that the participants get familiar with the English version of the reform material since the manuals and training material are most available written in English language.

Experts from research and Management were asked to review the items for face and construct validity and their suggestions were incorporated in to the questionnaire items before the administration. To ensure reliability, the items were pre-tested with thirty samples of the staffs. From the result Cronbach's alpha analysis was done for each constructs (Awareness, benefit, measurement and reward system, success factors, staffs' satisfaction) and showed that the developed scale was confirmed to be a reliable instrument since the coefficients lay within the acceptable range, with an alpha coefficient of 0.72, 0.76, 0.73, 0.82, and 0.83 corresponding to the above listed constructs or variables respectively.

### **Procedures for administration of the Instruments**

The administration of the questionnaire was conducted

by the researcher and four assistants who are fulltime employees of the University (MU). By introducing the purpose of the study, an attempt was done to make participants be sure that their answers are confidential and only be used for the research purpose by the researcher and this was confirmed by not demanding them to write their name on the question paper. The questionnaire was distributed to the respondents at their work place and offices. The respondents were given time as per to their consent to complete the questionnaire for about 1- 8 days. After the administration of the questionnaire a continuous follow up was made by the researcher and his assistants to collect and give additional questionnaire for any lose. Finally, out of the 164 question papers distributed only 156 question papers were returned with complete answers to the close-ended questions. Open-ended items were not completed by most of the participants. However, the researcher believe that this may have resulted from the fact that since every item in the close-ended questions were developed and modified based on the comments abstained from the pilot study and evaluation of experts, participants may not think important to add more. This can be also assured from the responses given by few of the respondents since the responses were seen by the researcher as being more related to simple paraphrase of items in the close-ended part. Accordingly, only those items which are fully completed by 156 participants were collected, checked, and prepared for analysis.

### **Data analysis procedures**

The data collected were analyzed using descriptive statistics such as, percentage, mean and standard deviation. The scores of the individual items in the scale for the constructs: perceived awareness of BPR, perceived benefits of BPR, the staffs' overall satisfaction with the new work environment, perceived values of BPR measurement and reward system, and perceived importance of BPR success factors were computed and expressed in and percentage (for the first three constructs in this order) and mean and standard deviation (for the last two in this order). In addition, the scores for the categories or components with in each of these constructs were also determined by summing up the scores of the individual items in the categories and taking the average. Furthermore, the scores of the whole scale for each of these constructs were determined by summing all the items in the category and taking the average. Consequently, the outcome of the analysis of these constructs (variables) would reveal the individual scores, the average scores for the components, and the constructs as well. Finally, based on the results of the descriptive statistics, interpretation and thorough discussion was made to see how and in what extent the research questions are addressed.

**Table 1.** MU's Target population and sample size statistics.

Population Size		Sample size							
Academic staff		Support staff		Academic staff		Support staff			
S/no	Colleges	Male	Female	Male	Female	Male	Female	Male	Female
1	COE	187	15	83	97	14	1	6	6
2	CODANR	240	23	56	33	17	1	3	2
3	COHS	258	28	160	71	17	2	10	4
4	COSL	156	11	70	37	10	1	5	2
5	CONCS	144	12	52	21	10	1	4	1
6	COBE	240	55	33	64	16	4	2	4
7	COLG	172	15	9	6	12	1	-	1
8	COVS	54	9	21	14	4	1	1	1
9	Total	1452	168	484	343	87	12	31	20

Note: Target Population Size = 2450; Total Sample Size = 164

Source: Taken from MU's human resource office

## RESULTS

The statistical results of the data collected were presented beginning with the participants' general demographic characteristics. The responses are categorized into five major constructs (variables) as per the direction of the research questions. The statistics used are percentage (to express the amount of response rate laying in the specific position of the scales for each item) for three of the constructs. The results for the remaining two constructs (perceived value of BPR measurement and reward system, and the perceived importance of BPR success factors), are expressed using mean and standard deviation.

As displayed in Table 2, the demographic characteristics of the samples revealed that the participants were taken from eight colleges of the University. Accordingly, as indicated in this table, 20.5% (32) of the participants were taken from College of Health Science (COHS) which consists of 18 from academic staffs and the remaining 14 support staffs. Similarly, samples from the rest seven colleges include: 16.7% (26), 14.1% (22), 10.9% (17), 9.6% (15), 16% (25), 8.3% (13), and 3.8% (6) corresponding to COE, CODANR, COSL, CONCS, COBE, COLG, and COVS, respectively. Table 3 depicts the frequency and percentage distribution of responses in the scale for each awareness measuring item. This table shows only the combined percentage distribution of the participants' responses for the components (nature of BPR, requirements for BPR, and the purpose of BPR) of BPR awareness measures. Moreover, the participants' general awareness rate is also indicated.

Similarly, In Table 3, it is indicated that 69.1% of the

participants were found to respond imperatively which is to mean that such amount of the participants are clear with the nature, requirement, and purpose of BPR in their organization. On the contrary, 31.9% of the participants were seen to relegate to the remaining positions in the scale. That is, 15.2% of the participants respond negatively where as the rest, 16.7%, lay in the middle of the scale for the position 'not sure'.

Specifically, as displayed in Table 4, 75.7%, 71.4%, and 60.3% of the participants were found to be aware of the purpose, requirement, and nature of BPR in their organization, respectively. This clearly shows, comparatively speaking, greater numbers of participants have responded favorably, of course, the response for the component purpose being the highest among the other two.

The remaining percent: 24.3%, 29.6%, and 39.7% of the participants for the Components: purpose, requirement, and nature of BPR, respectively relegated to the rest scale for the positions 'No', and 'Not sure' by approximately contributing equal share to the specified percentage in each of the three components, respectively. Moreover, it can be said that majority of the participants are acquainted with the necessary or appropriate information concerning BPR implementation in the University and, as a result, they are clear with the nature, requirement, and purpose of the organizational transformation. On the other hand, although comparatively small percent is covered by those participants who responded negatively, and those who are not sure about the prevailing organizational transformation, this indicates the existence of certain number of participants who either lacking clarity with or demanding further orientation or training. Generally speaking, MU has maintained a

**Table 2.** Demographic characteristics of participants.

S/no	Colleges	Academic		Support			
		N	Percent	Male	Female	Male	Female
1	COE	26	16.7	13	1	6	6
2	CODANR	22	14.1	16	1	3	2
3	COHS	32	20.5	16	2	10	4
4	COSSL	17	10.9	9	1	5	2
5	CONCS	15	9.6	9	1	4	1
6	COBE	25	16	15	4	2	4
7	COLG	13	8.3	11	1	-	1
8	COVS	6	3.8	3	1	1	1
9	Total	156	100	79	12	31	20

**Table 3.** The staffs' perceived awareness of business process re-engineering.

S/n	Items	Percent			
		No	Not Sure	Yes	Total
1	i. Nature	21.4	21.3	60.3	100
	Re-engineering is downsizing i.e., doing less with less.	35.9	29.5	34.6	100
	Re-engineering focuses on process structures(team) that cross the organization's functional boundaries.	14.7	17.3	67.9	100
	Is radical redesign of business process to achieve dramatic improvement in performance	15.4	19.2	65.4	100
4	It focuses on activities that add value to the customer.	16	16	67.9	100
5	ii. Requirement	13.8	14.8	71.4	100
	The need to seek greater responsiveness to the flexible needs of customers	14.7	13.5	71.8	100
	The need to cope up with the fierce competition and rapidly changing environment	16	15.4	68.6	100
7	iii. Purpose	10.3	14	75.4	100
	To secure competitive advantage and for ensuring MU adapt to the changing demands placed up on it.	10.9	15.4	73.7	100
	To enable MU to realize its mission and objectives towards the attainment of the long-run socio-economic development goals of the country	11.5	13.5	75	100
	To satisfy the specific societal and community level capacity building needs	8.3	12.8	78.8	100
10	Total perceived Awareness rate	15.2	16.7	69.1	100

Note: The value for item number 1 was reversed

favorable condition concerning its staffs' awareness of BPR introduction in to the University. For more understanding, you may refer table 3, in which the Statistical value of every item is presented.

Table 4 presents the participants' response distribution statistics for the items measuring BPR benefits to the staffs and Table 5 depicts the statistical distribution of the responses for the items measuring BPR

benefits to the University. Similarly, table 6 shows the combined percentage distribution for all the items measuring perceived benefits of BPR to the staffs and the University as well. Accordingly, as indicated in table 6, 18.1% of the participants have shown strong agreement to the intended benefits of BPR to both the staffs and the University. Similarly, 29.4% of the respondents have revealed an agreement with these

**Table 4.** The Staffs' perceived Benefits of Business process Re-engineering to the staff.

S/no	Items	Percent					Total
		SDA	DA	UND	AG	SAG	
1	Seamless access to support services and resources	16.7	29.5	18.6	20.5	14.7	100
2	Transparent staff recruitment and evaluation system	12.2	17.9	19.2	30.8	19.9	100
3	Sufficient ICT and library support	15.4	25.4	24.4	19.9	15.4	100
4	Conducive working environment	15.4	23.1	25	21.2	15.4	100
5	High opportunities for staff development	14.1	18.6	19.9	28.2	19.2	100
6	Being paid on performance basis	22.4	28.8	20.5	17.9	10.3	100
7	World class researchers/problem solvers	11.5	22.4	26.3	25	14.7	100
8	Rich research facilities and community centers	16.7	31.4	17.3	23.7	10.9	100
9	Sufficient time to do research and community	11.5	17.3	16.7	32.1	22.4	100
10	Empowered in carrying out teaching, and research	8.3	14.1	16	37.8	23.7	100

N.B.: SDA = Strongly disagree, DA = Disagree, UND = Undecided, AG = Agree, SAG=strongly agree

**Table 5.** The staffs' perceived benefits of business process re-engineering to the University**Percent**

S/no	Items	SDA	DA	UND	AG	SAG	Total
1	Vision and mission shared among all	8.3	14.7	16	36.5	24.4	100
2	Autonomy in program initiation and	10.3	14.7	19.2	37.2	18.6	100
3	Excellence in education	9.6	14.1	18.6	37.2	20.5	100
4	Efficient governance in teaching and learning	9.6	16.7	20.5	32.1	21.2	100
5	Enhanced ICT infrastructure	10.3	16.7	26.9	26.9	19.2	100
6	Institutionalized quality assurance system	9	16.7	17.3	38.5	18.6	100
7	Effective and efficient use of resources	10.9	21.8	23.1	28.8	15.4	100
8	Enhanced research and community service culture	11.5	18.6	17.3	34	18.6	100
9	Diversified income generation system	13.5	16	18.6	32.1	19.9	100
10	Develop organizational infrastructure	10.1	20.5	19.9	28.8	20.5	100

N.B.: SDA = Strongly disagree, DA = Disagree, UND = Undecided, AG = Agree, SAG=strongly agree

**Table 6.** Summary of statistics on the Staffs' Perceived benefits of Business process Re-engineering.

S/no.	Response categories	Percent					total
		SDA	DA	UND	AG	SAG	
1	Benefit to the staffs	14.4	22.9	20.3	25.7	16.6	100
2	Benefit to the university	10.4	17.2	19.7	33.2	19.5	100
3	Total perceived Benefit rate	12.4	20.1	20	29.4	18.1	100

N.B.: SDA = Strongly disagree, DA = Disagree, UND = Undecided, AG = Agree, SAG=strongly agree

benefit measuring items. On the contrary, 20.1%, 12.4% of the participants were found to show disagreement and strong disagreement respectively to these BPR benefit measuring items. The remaining 20% of the participants are also observed to refrain from showing either

agreement or disagreement.

Moreover, higher percentage of favorable response is observed for the items measuring BPR benefits for the University as compared to the response rates for the items measuring BPR benefits to the staffs (52.7%, and



**Table 7.** Mean and Standard Deviation on perceived values of BPR Measurement and Reward system

S/no	Items	Mean	Std. Deviation
1	Measuring performance by the value created to the customer	3.66	1.127
2	Paying employees based on their performance	3.49	1.231
3	Transparent and market oriented remuneration system.	3.48	1.231
4	Consideration of Employees' character other than education & skills	3.29	1.311
5	Team based measurement and reward system	3.51	1.221
6	Promoting employees based on their ability, not performance	3.32	1.249
7	Empowering workers to make decisions needed to get the work done.	3.56	1.199
8	Demanding employees to strictly follow rules and procedures to work their Jobs.	1.38	1.178
9	Benefits are joint accountability of MU and the employees.	3.52	1.226
10	Compensation based on contribution and performance	3.44	1.192
11	Rewarding an entire teams for the process performance	3.54	1.241
12	Higher pay honored to senior people, not to the most productive	1.6	1.289
	Means Average score	3.48	1.22

N.B. 1 2 3 4 5  
Less Valuable Most Valuable

Note: The values for item numbers 8 and 12 were reversed before the total items were computed to give the means average score for the construct.

**Table 8.** The Staffs' overall Perception on values of BPR measurement and reward system .

	Percent					Total
	Less valuable	2	3	4	Most valuable	
Average result of perceived	9.5	14.9	23.2	29.8	22.6	100

42.3%), respectively. However, the unfavorable response percentage for the participants laying in the undecided and disagreement position together surplus the response percentage of participants responded favorably to the items measuring BPR benefits to the staff.

Generally, this implies that there is a better favorable belief of the staffs towards the items measuring BPR benefits to the university as compared to the items measuring BPR benefits to the staffs. But, overall, lesser accounts of the participants are found to perceive favorably to the items measuring BPR benefits when it is viewed in total.

Table 7 depicts the participants' responses distribution statistics for the items measuring the perceived value of BPR measurement and reward system. In this table, the results are expressed in mean and standard deviations. As indicated under the Table, the scale ranges from less valuable to most valuable. Consequently, the mean value for the items would lay in the scale from one (lowest mean) to five (highest mean). Accordingly, the mean scores for the items which were stated positively or directly to be rated were found to be ranging from 3.29 (for item number 4) up to 3.66 (for item

number 1) with standard deviation of 1.311 and 1.127, respectively.

On the other hand, the mean scores for item number 8 and 12, which were stated in such a way to be rated indirectly, were also found to be lower, i.e., 1.38 and 1.60 with standard deviation of 1.178 and 1.289, respectively.

Moreover, the means average score for all the items in this construct was found to be 3.48 with standard deviation of 1.225. This clearly indicates that the participants have responded favorably to the whole items measuring the perceived values of BPR measurement and reward system. More specifically, as indicated in Table 8, 75.6% of the participants were found to respond favorably, ranging from average to the most valuable for the whole items in the scale measuring the value of BPR measurement and reward system. In this same Table, the remaining 24.4% of the participants are seen to lay in the scale from below average to less valuable. In addition, 22.6% of the participants rate the items as the most valuable. On the contrary, only 9.5% of the participants have rated the items with less valuable. Moreover, the majority of the respondents (52.4%) are observed to rate the items ranging from above average to





organization is able to overlook the importance of change. However, it is the extent of the changes that is often so hard to make clear and also hard to determine the effect of change on employees. With this in mind, assessing MU's staffs' perceived awareness of BPR implementation at their organization was taken as one purpose of this survey study which the researcher believed important to get insight in to the employees' understanding and beliefs of the changes' nature, requirement, and purpose. As a result, in this part the result obtained from the study is discussed to see to what extent and how the research question: "Do MU's staffs acquainted with the appropriate information about the nature, requirement, and purpose of BPR implementation at the University?" is addressed.

Accordingly, from the result obtained it was found that majority (69.1%) of the participants were found to favorably clear with the introduction of BPR into the University concerning its nature, requirement, and purpose. More specifically, greater number (75.5%) of participants were observed to view the organizational transformation as having the following purposes: securing competitive advantage and ensuring MU adapt to the changing demands placed up on it, enabling MU to realize its mission and objectives towards the attainment of the long-run socio-economic development goals of the country, and satisfying the specific societal and community level capacity building needs. This really coincides with the University's rationale to introduce BPR, and other organizations as indicated by Penrod and Dolence (1992). Similarly, most (71.4%) of the participants of this study show their conformation with the underlying requirement of BPR in their organization. And finally, majorities (60.3%) of the participants were found to be clear with the nature of BPR. This indicates that considerable problems were not obtained with participants' perceived awareness of BPR implementation in the University. So, it may be deduced that MU has obtained an acceptable level of BPR awareness program with its staffs. In addition, this helps that the employees source of resistance not to be strongly attributed to the staffs' inappropriate awareness of the change-BPR. Moreover, this will help the University' management body to devote more energy to the actual practice of BPR and examine other factors contributing to the success of BPR implementation. Further, this will maximize the staffs' readiness to the acceptance of the change in this University with minimum perception differences, which will favorably increase, other factors being constant, the staffs' engagement in the change process, BPR in this context. This is also supported with the idea of Eby, *et al.* (2000) that suggests the importance of the employees' perception to their genuine involvement in the change process endeavors.

### **Potential benefits of BPR**

Obtaining potential benefits is one of the most important motivations of BPR implementation. As documented by the organizational transformation of MU, generally, it can be summarized as having the following central intent: facilitates communication and improves information sharing, helps improve productivity and reduce costs, enhances competitiveness. Thus, as part of this study an attempt was made to explore the staffs' perceived benefits of BPR to the staff and the University as well. So, here the results indicated in Tables 5, 6 and 7 are examined to see to what extent and how the research question: "Do MU's staffs believe that the adoption of BPR will benefit them and the University as well?" As a result, comparatively speaking, small (42.3%) of participants show their agreement with the items reflecting BPR benefits to the staff, and majority (52.7%) of the same participants were found to show agreement with BPR benefits to the University. Generally speaking, most of MU's staffs' hesitate with the benefits that the organization believes to be gained by them as a result of BPR introduction; but, they have shown a favorable believe with the potential benefits of BPR to the University. This may happen as a result of lack of concern to the staffs as per their expectation with the new work environment by MU's management. Of course, this is revealed in the staffs' overall satisfaction examination. Moreover, since employee's perceptions is believed to be affected by their experience of the change, possibly, this result may be attributed to the participants' perception of the degree to which their organization has the flexibility to achieve change, and the extent to which they can actively and genuinely participate in the process, for many reasons indicated in the results for the staffs satisfaction with the new work of environment. Therefore, since a gap is observed between what the staffs perceive and the expected potential benefits of BPR, the researcher believes that MU should re-evaluate the real exercise of BPR in the University against the prescribed benefits of BPR to the staffs and the university as well.

### **Perceived value of BPR measurement and reward system**

In any management tool it is noted that measurement and reward system as the primary shapers of the employees' belief and value system. This is also a given fundamental importance to the success of BPR projects. So, an attempt is made to discuss the results with regard to the research question: "Are the measurement and reward systems of BPR valued as important by the MU's staffs?" to see to what extent and how it was addressed. Accordingly, most (75.6%) of the participants were found to rate the items as valuable. In addition, the means

average score of the whole scale was found to surplus the average value of the scale, i.e., 3.48 with standard deviation of 1.225. This clearly shows that MU's staff do not have great problem with the conceptual view of BPR measurement and reward system. As far as the researcher understands, these different results may happen mainly due to two reasons. One is strong communication network development within the university, for this the participants' higher level of rating to the item measuring their awareness to the vision, mission, and goals of the University can be evidence. The other is that these measurement and reward system may have appropriately inculcated the values that the staffs deserve more. Thus, it may be possible to deduce that MU has secured the staffs' positive perception with its newly introduced measurement and reward system at comparatively acceptable extent.

### **Perceived level of importance of BPR success factors**

**“What is the perceived level of importance of BPR success factors?”** Accordingly, the discussion is made with respect to organizational culture, organizational structure, management commitment, customer involvement, and resources.

### **Organizational culture**

Most of the respondents believe that an organizational culture characterized with: open communication (clear, honest, and frequent), strong leadership style, shared organizational vision and mission, and employees' participation in decision making as important for the success of BPR in their organization. Specifically, all of these four factors related to organizational culture were perceived as most important success factors of BPR. On the other hand, these factors were rated with higher means, that is, 4.16, 4.09, 4.04, and 3.95 corresponding to open communication, strong leadership style, shared organizational vision and mission, and employees' participation in decision making, respectively. This clearly indicates that these factors were highly believed to be important success factors of BPR. Although all of these factors were seen to be rated as having higher importance to the success of BPR in this at MU, comparatively speaking, open communication takes the first rank and employees' participation in decision making the fourth. However, it should be underlined that all factors are rated higher importance by most of the participants.

As to the staffs' perspective, it can be said that an organization having a culture characterized with open communication, strong leadership style, shared organizational vision and mission, and employees' participation in decision making would create favorable

condition to the success of BPR implementation in the organization. The evidence here and elsewhere is that a strong and appropriate culture, which is characterized by open communication, strong leadership style, shared organizational vision and mission, and involvement of employees in decision making, should be developed in the organization. This supports the idea of Grover *et al.* (1995), cited in Hamid Reza Ahadi (2004). They have identified the importance of egalitarian culture—where cooperation, coordination, empowerment of employees are supported as important standards of innovative organizational environment. Moreover, they have indicated that an egalitarian culture has positively associated with successful implementation of BPR which was also noted to be characterized with the aforementioned success factors. Authors like Alavi and Yoo (1995) and Lee Asllani (1997) stressed the importance of organizational culture to ensure success in incremental or radical change. Underlining the result of this study, I have the same opinion as Murray and Lyan (1997) who highlighted innovativeness, which in turn is thought to be supported by an egalitarian culture, as a vital for large scale process change, which is BPR in this context. Therefore, parallel to what has been found in this survey study, the organization should have to develop an organizational culture that fosters cooperation, coordination, and mutual trust, empowerment of employees, and innovative environment for majority of the participants perceived the factors as highly important to contribute to the success of BPR implementation. This also goes with the idea of Johns and Saks (1997) that indicated the significance of employees' perception in determining engagement or disengagement of employees in a change process. Employees as the target of change are central to the success of the change efforts because their attitudes, skills, motivations and basic knowledge form a significant component of the environment in which change is to be attempted (Smith, 2005). At the same time, as highlighted by Lewis, *et al.* (2005), Perception influences employees' attitudes and behavior intention in facing the impending change.

Thus, the researcher believes that it will be the right way to adapt and adopt appropriate culture as to the staffs' perspective in order to ensure the success of BPR implementation in this organization. This is because employees' perception is identified as a critical soft criterion that plays an important role in determining the prevailing quality culture of the organization (Black and Porter, 1996).

### **Organizational structure**

It was found that the participants believe that Job integration, less bureaucracy to encourage innovativeness, and employees' empowerment as important factor

to the success of BPR implementation at the University. More specifically, these factors are rated as most important by most of the participants. That is, these factors were found to be identified with higher mean scores of 4.00, 3.97, and 3.92 with standard deviation of 1.010, 1.016, and 1.044 corresponding to less bureaucracy to encourage innovativeness, job integration, and employees' empowerment, respectively.

Moreover, it was found that 90.5% of the participants believed on the importance of having organizational structure characterized with the aforementioned factors for the success of BPR implementation. This implies the importance of developing an organizational structure that supports employees' empowerment, job integration, and less bureaucracy to encourage innovativeness. In addition, organizational structure should enable BPR in terms of its encouraging creativity and innovativeness in the organization. Therefore, the need for less bureaucracy, and more participation and empowerment in the organization becomes mandatory. A cross-functional integration, which is found to be supported by the participants in this study, especially through teamwork, should be implemented in the organization to promote successful process change, which goes in line with the ideas of Peppard and Fitzgerald (1997) and McAdam (2003).

Furthermore, since "innovativeness" is essential for BPR to happen successfully, McAdam (2003) suggested that organizations should implement less bureaucracy, to encourage innovativeness. Similarly, what is found in this survey study supports this idea.

This evidence seems to suggest that the top management should re-evaluate their organizational structure as to whether it is appropriate for today's situation, with a rapid changing environment, tight competition in the market, and the emerging of new HEIs and new technology. Besides, this may create a good opportunity for the success of BPR implementation since the result of this study shows participants' favorable perception to the factors considered by many research finding as fundamental to the success of BPR.

Moreover, it was found that less bureaucracy would encourage innovativeness in an organization to move ahead and to implement BPR successfully. Similarly, the practice of cross-functional teams opens up widely the opportunity to have a more process perspective, which is parallel to the BPR concept. And, also if empowerment is practiced it would make the organization faster to respond to customer needs, and therefore the organization will get benefits from it. Therefore, for the participants' perception of the importance of factors to the success of BPR implementation in the University coincides with previous research result in the area, it will be important for the University to take account of these factors in order to ensure the success of BPR implementation.

### **Management commitment**

Another essential element of developing an innovative organizational environment for successful BPR implementation is management commitment which includes: top management support, and change management (Hammer, 1990). Parallel to this concept, this study has considered some basic elements that reflect management commitment and the participants were made to reflect their perception regarding the factors contribution to the success of BPR implementation at MU. Accordingly, as indicated in Table 9, majority (88.9%) of the participants have given their favorable responses to the importance of the factors to the success of BPR implementation. More specifically, it was found that the elements in the management commitment were rated with mean scores that surplus the average mean in the scale. That is, 3.94, 3.92, 3.88, 3.88, 3.83, and 3.83 with standard deviation of 1.027, 1.032, 1.041, 1.119, 1.042, and 1.065 corresponding to performance measurement, top management support and commitment, Training and education of employees, employees' empowerment, communication, and reward system, respectively. This clearly implies that the need to have an organization that supports enrichment of these factors for its successful BPR endeavor, in this context MU. Of course, this goes with the works of Hall *et al.* (1993)

Moreover, regarding the importance of top management support and commitment, employees' empowerment, performance measurement, reward system, Training and education of employees, and communication, researchers in organizational development perspective, such as Huber and Glick (1995), Bechtel and Squires (2001) and Senior (2002) highlighted these factors as vital and become crucial when radical change, BPR is involved. Besides, Archer and Bowker's (1995) in their survey with consulting companies specializing in re-engineering have reported that lack of exercising the above factors were indicated as cause for failure of BPR. So, from the evidence obtained in this study, which is also found to be in line with the works of many researchers in the area, favorably, it can be said that MU should adapt a management commitment condition which reflects what the participants have indicated as important success factors for BPR implementation.

### **Customer involvement**

Similar to the components of the construct BPR success factor earlier mentioned, an innovative organizational environment requires customer involvement during BPR implementation (Zirger and Maidique, 1990). This was found to include: considering customers feedback, using as source of information, and satisfying customer needs. In line with this idea, this study has attempted to see the



importance of these factors to the success of BPR implementation at MU's context through the staffs' perception. Accordingly, the result of this study reveals that 91.6% of the participants were found to respond favorably, that is, have rated the factor from important to critical importance in the scale. This implies that the importance of customer involvement is noted by majority of the participants, which is the primary concern of BPR. Therefore, possibly it indicates that MU's staffs do not doubt with introduction of BPR prioritizing the concern to the customer and customers' satisfaction as bases of measure of performance. Thus, this clearly indicates the presence of favorable condition with respect to the participants' perception, which MU should take advantage in its BPR implementation endeavors.

### Resource

Organizations use resource management to develop an innovative organizational environment for successful BPR implementation. A lack of resource can prevent BPR from succeeding (Bashein *et al.*, 1994; Venkatraman, 1994). Commonly, resource management mainly involves financial, technologies, human, which are believed to be determinant for the success of BPR projects (Davenport and Short, 1990; Marchand and Stanford, 1995). In this study it was intended to examine the level of importance of resource related factors as earlier mentioned, through the staffs' perception. As a result, participant were provided with factors such as knowledgeable, skilled, and competent people, adequate financial support, and information technology, to see how MU's staff rate the importance of these factors within their organizational context. Consequently, as indicated in Table 9, most (93.2%) of the participants are seen to rate the factors from important to critical importance in the scale. This is to mean that the participants believe in the importance of these resource factors to the success of BPR in their organization. Similarly, it was found that financial resources are obviously important to move the initiatives, since without enough funding any efforts would end meaningless (Stagnan and Kotnour, 2001). Therefore, budget allocations to BPR should be viewed as a long-term investment to get favorable results which would give profit to the organization. Moreover, it was noted that Information Technology (IT) as the key factor in BPR for organization that wants to witness a "radical change" in its operation (Hammer 1990). Of course, the human factor was identified as a core factor facilitated by the other two (Smith and Will cocks, 1995). In line with these, the results in this survey study reveal that the factors:

adequate financial support, knowledgeable, skilled, and competent people, and information technology were found to be rated with higher

mean scores. That is, 4.02, 4.01, and 3.92 with standard deviation of 0.940, 0.957, and 1.019 corresponding to the respective factors listed above. More clearly, although all of these factors are highly believed to be important to the success of BPR, they are also observed to be prioritized as adequate financial support taking the first rank and IT the third.

This evidence may lead us to note the organization to take the aforementioned factors as important BPR success factor. Therefore, the University should give greater attention to the fulfillment of these factors, of course, by paying attention to the priority given by the participants, in order to ensure BPR success in the University. Generally, from the results of all the components, it can be concluded that the research question is addressed to a higher extent for 91.8% of the participants favored the importance of BPR success factors listed, refer Table 10.

Similarly, as indicated in Table 9, the means average score for all of the components in the construct was found higher than the average scale which indicates higher favorable response rate given to the importance of these factors to contribute to the success of BPR implementation in the University. Further, the components were found to be rated from important to critical importance by most of the participants. Specifically, the percentage of the participants' favorable response (from average to critical importance) for each of the components was found to be:

Components (variables)	Favorable response rates
i. Organizational culture	94.50%
ii. Resource	93.20%
iii. Organizational Structure	90.90%
iv. Customer involvement	91.60%
v. Management Commitment	88.90%

### Staffs' overall satisfaction

In previous research findings it was found that employees' job satisfaction relate strongly to the perceived work environment in general. Besides, employees' perception of quality of work- life is often assessed using job satisfaction and organizational climate surveys (Krueger, Brazil, Lohfeld, Edward, Lewis, Tjam, 2002). Similarly, in this survey study an attempt was made to examine the staffs' satisfaction with the new world of work environment, specifically, with respect to: organizational commitment, reward and opportunity, managerial competence, Work environment, and work place relationships. As a result, in this part the results of the survey are discussed to see MU' staffs satisfaction level with the new world of work environment, BPR in this context.

### **Organizational commitment**

Organizational commitment has been defined as the psychological identification that employees have toward their employing organization (Bishop *et al.*, 2005). Commitment is a psychological state that characterizes the employee's relationship with the organization, and has implication for the decision to continue or discontinue membership in the organization. It is also believed that employees commitment as determinant to the success of any change endeavor, which in part results from the employees' satisfaction with the organization in general (Cohen, Kinnevy and Dichter, 2007). Therefore, in this survey study, the staffs' organizational commitment was assessed so as to imply their satisfaction with the new work environment. Accordingly, the results of the participants' response to the items measuring the staffs' organizational commitment reveal only 41.2% responding favorably. Specifically, 69.9% up to 24.4% of the participants were found to rate the items imperatively corresponding to awareness of the University's vision, mission, and goals, feeling a strong sense of belongingness to the organization, fitness of job to skill and talent, enjoying discussing about the organization with people outside it, actively seeking employment elsewhere, recommending MU to prospective employees, and being very happy to spend the rest of career in this organization, respectively. This in general implies low satisfaction of the staffs. This is because the remaining percentage (58.8%), as indicated in Table 11, is seen to lie from undecided to strongly disagree position in the scale. Majority of the participants have also shown their satisfaction only to two items, awareness of the University's vision, mission, and goals, and fitness of job to the skill and talent, in the construct. But, this may not contribute more to the average satisfaction measure-organizational commitment. As a result, the University needs to re-examine its work condition in order to maintain the staffs' organizational commitment, which the researcher believes vital to the success of the change.

### **Reward and opportunity**

Evidence from previous studies revealed that extrinsic rewards such as performance appraisal, promotion and increased salary are closely tied to employees' performance, Mohamed Zairi *et al.* (2007). In addition, a compensation system that provides merit rewards, adjustments for promotion and educational preparation changes, and addresses longevity and salary equity issues is noted important to be considered (UW-Stout, 2003), cited in Mohamed Zairi *et al.* (2007). In this study, it was found that most of the participants were not satisfied with the reward and opportunity system of the University. As indicated in Table 11, only one-fourth of

the participants were seen to favorably respond, that is, they were satisfied with the reward and opportunity of the University. Specifically, the participants of the University reveal low satisfaction with: opportunity for capacity building and professional development, competitiveness MU's of benefit package, adequacy of recognition and reward for a job well done, and satisfaction with salary. From this result, it can be said that Mekelle University is not adequately dealing with the reward and opportunity system as per the needs of the staffs. Since addressing these issues is believed to be fundamentals for increasing employees' performance, it is important for MU to address these to acceptable extent in order to ensure the success of the organizational transformation being implemented.

### **Managerial competency**

Managerial competency is also seen as one aspect of job satisfaction. In this study, as indicated in Table 11, the participants show low (22%) satisfaction with this variable. More specifically, it was found low managerial supports in learning new skills, less clarity with managerial expectations regarding performance measures, manager with lacking leadership quality, and finally not satisfying with performance feedback provided. In short, this indicates that the relation between manager and the employees is not as such in line with BPR principles. So MU should need to examine this condition in order to really create an environment where BPR principles are seen to be practical.

### **Work environment**

If employees feel badly treated or unhappy in the workplace they are more likely to reveal their discontent to subjects outside the organization. This can have a devastating effect on organizations reputation. In this part, conditions such as: safety, job autonomy, recognition for the importance employees' personal life, equipment and resources provision, feelings of accountability, valuing employees' idea, and satisfaction with MU's compensation, promotion and performance appraisal system were used to examine the staffs' satisfaction with the existing work environment. Accordingly, it was found that only small percentage (19.4%) of the participants have shown imperative response. Consequently, this shows that employees in this organization are not experiencing conducive work environment.

### **Work place relationship**

Similarly, with the above aspects of satisfaction mea-

**Table 11.** The Staffs' overall satisfaction with the new work environment.

S/no.	Items	Percent					Total
		SDA	DA	UND	AG	SAG	
	i. Organizational Commitment	10.8	22.1	25.9	23.5	17.7	100
1	I am aware of the University's vision, mission, and goals	1.9	6.4	21.8	38.5	31.4	100
2	I do not feel a strong sense of belongingness to my organization	4.5	10.9	25.6	33.3	25.6	100
3	My job is a good fit for my skill and talent	5.8	21.2	28.2	25	19.9	100
4	I enjoy discussing my organization with people outside it	12.2	28.2	26.9	17.3	15.4	100
5	I would recommend MU to prospective employees	15.4	31.4	28.2	14.7	10.3	100
6	I am not actively seeking employment else where	14.1	28.2	25.6	19.9	12.2	100
7	I would be very happy to spend the rest of my career in this organization	21.8	28.2	25.6	15.4	9	100
	i. Reward and Opportunity	16.6	31.5	26.6	15.7	9.6	100
	High opportunity for capacity building and professional development.	16.7	30.1	26.9	16	10.3	100
8	MU's benefit package is competitive	18.6	32.7	26.3	14.7	7.7	100
9	I receive adequate recognition and reward for a job well done	18.6	30.1	23.1	16	12.2	100
10	I am satisfied with my salary	12.2	33.3	30.1	16	8.3	100
	iii. Managerial competency	20	31.7	26.3	13.8	8.2	100
11	My manager treats me with respect	19.2	30.1	25.6	14.7	10.3	100
12	My manager supports me in learning new skills will be evaluated	19.2	28.8	28.8	14.1	9	100
13	I know what is expected of me and how my performance	20.5	30.1	25	14.7	9.6	100
14	MU keeps employees informed about Key issues.	18.6	32.7	25	15.4	8.3	100
15	My manager is strong, trustworthy leader.	19.2	34	26.3	14.1	6.4	100
16	I receive appropriate feedback on how I am performing my job	21.2	33.3	27.6	11.5	6.4	100
17	MU holds individuals accountable for their productivity	22.4	32.7	25.6	12.2	7.1	100
	iv. Work Environment	20.7	34.3	26.6	12.8	5.6	100
18	I feel safe at my workplace	21.8	32.1	26.9	12.8	6.4	100
19	I have significant autonomy in determining how I do my job.	21.2	34.6	28.2	11.5	4.5	100
20	MU is concerned for the welfare and safety of employees	20.5	35.9	26.9	11.5	5.1	100
21	I am given the equipment and resources I need to perform my job.	21.8	36.5	25	11.5	5.1	100
22	At MU there is recognition for the importance of my personal life	21.2	35.3	26.9	10.9	5.8	100
23	My ideas are appreciated and seem to count.	19.9	34	25	14.7	6.4	100
24	MU is interested in what employees think about their jobs.	21.2	31.4	26.9	14.1	6.4	100
25	I feel accountable to the success or failure of the process team	19.2	34	25.6	14.7	6.4	100
26	I am satisfied with MU' compensation, promotion and performance appraisal system	19.2	34.6	28.2	13.5	4.5	100
	v. Work place relationships	22.4	34.2	25.8	12.6	4.9	100
27	I like and trust the people with whom I work	21.8	34.6	24.4	14.1	5.1	100
28	I have a mentor/colleagues who are interested in me professionally	21.8	33.3	26.9	12.8	5.1	100
29	I dislike team work approach because there are free riders	23.7	34.6	26.3	10.9	4.5	100
30							

N.B.: SDA = Strongly disagree, DA = Disagree, UND = Undecided, AG = Agree, SAG =strongly agree Note: The value for item numbers 2, 6, and 30 in table 11 above, were reversed

tures, the result for this component reveals a low (17.5%) satisfaction rate of the participants. More clearly, the participants were found to show low satisfaction with trusting people, mutual professional interest, and team work approach. This implies a great challenge to the realization of BPR achievement goals since BPR basically follows team work approach working environment. So, it will be very important, for the organization, to examine the work place relationship

condition of the staffs so as to establish a favorable condition that will facilitate BPR success in the University.

Generally, the result of this study shows the participants' low satisfaction with the existing work environment of the University. Specifically, the percentage of the participants' favorable response (from agree to strongly agree), for each of the components is found to be:

Components (variables)	Favorable response rates
i. Organizational Commitment	41.20%
ii. Managerial Competence	25.30%
iii. Reward and Opportunity	22%
iv. Work Environment	19.40%
v. Work place relationships	24.90%

Generally, the staffs' perception of BPR regarding awareness, benefits, quality of measurement and reward system, importance of selected BPR success factors, and overall satisfaction with the new world of work were found to be favorably supported with correspondingly 69%, 47.5%, 75.6%, 91.8%, and 24.9% of the participants, respectively. Consequently, this implies:

- i. The awareness of MU's staffs regarding the implementation concerning its nature, requirement, and purpose was found to be favorably above average. This is because most of the participants were found to demonstrate imperative response to the intended requirement, purpose, and nature of BPR.
- ii. BPR benefits in general are observed to unfavorably be perceived, i.e., low level of perception is observed regarding the potential benefits of BPR. This indicates that MU is not practicing BPR in a way that guarantees the staffs to gain the intended or expected benefits as a result of BPR introduction in to the University.
- iii. A gap exists between the staffs' perceived value of BPR measurement and reward systems and the participants' satisfaction level with the new world of work environment resulted from the introduction of BPR. Therefore, this indicates that MU is not implementing BPR measurement and reward system in a way that brings an acceptable level of satisfaction among the staffs.
- iv. Similarly, a gap exists between what the participants believe important to the success of BPR implementation and their satisfaction level with the new work environment. Thus, it can be implied that MU is not exercising the determinant factors for the success of BPR in line with the staffs' perspectives at a level that satisfies the staffs.
- v. MU's staffs are experiencing low level of satisfaction with the new world of work environment resulted from the introduction of BPR. More specifically, low level of satisfaction was observed among MU's participants regarding work place relationship, work environment, managerial competence, reward and opportunity, and finally leads to low level of organizational commitment among the staffs. In short, it can be displayed statistically as follows:

Major Constructs (variables)	Favorable response rates
i. Over all MU's staff satisfaction with the new work environment	24.90%
ii. Perceived benefits of BPR	47.50%
iii. Perceived awareness of BPR	69%
Perceived values of BPR measurement reward system	75.60%

Perceived importance of BPR success factor 91.80%

## CONCLUSION

Based on the Summary of the findings made, the following conclusions were draws:

1. It is found out that MU's staffs have acquired a good understanding and have favorable views of BPR implementation regarding its nature, requirement, and purpose. In other words, most of the staffs were found to have perceptions regarding BPR implementation that goes in line with what is inherently known of BPR.
2. The findings also indicate that, at MU, BPR is not satisfactorily being practiced in a way that guarantees the staffs to gain the intended benefits resulted from the introduction of BPR in to the University.
3. Similarly, it was found out that MU's staffs have positive perception towards BPR measurement and reward system; but the University is not practicing these valuable measurement and reward system at a satisfactory level.
4. From the findings of the staffs' satisfaction it can be inferred that MU lacks exercising favorable organizational culture, organizational structure, management commitment, customer involvement, resource supports as to the perspectives of the staffs at a satisfactory level.
5. Finally, it was found out that MU's staffs are not satisfied with the new world of work. As it can be understood from the perceptions of the participants with the other variables, this can be attributed to the University's inability to fully implement BPR.

## RECOMMENDATION

On the basis of the conclusions made, the following suggestions were made:

1. It will be appropriate and helpful if MU's management body, considering the staffs' perceived awareness of BPR implementation, gives emphasis to the actual practice of BPR principles through appropriate impact assessment procedures.
2. In order to develop and maintain favorable perception of the staffs towards BPR benefits in general, it will be also important for MU to re-examine the actual practice of BPR regarding:
  - a. The measurement and reward system employed.
  - b. Access to services
  - c. Adequacy of provision of equipments and materials
  - d. Research facilities and community service centers available Resource and time availability for doing research

- e. Effective and efficient use of available technologies
- f. Efficiency of governance in the teaching and learning process
- g. Autonomy in program initiation and management

3. It is also important for MU's management body to assure the adoption of a strong and appropriate organizational culture characterized with:

- a. Open communication (clear, honest, and frequent), b. Strong and trust worthy leadership style,
- c. Shared organizational vision and mission, and d. Empowerment of employees

4. In addition, it will be help full if MU holds strict enough to the existence of an organizational structure that encourage Employees' empowerment, job integration (team work), and less bureaucracy so as to enhance innovativeness among the University employees.

5. Finally, it will be good enough if MU works more to enhance the staffs' level of satisfaction with the new world of work resulted from the introduction of BPR by giving emphasis to the staffs' organizational commitment, reward and opportunity, managerial competence, work environment, and work place relationship.

Furthermore, the researcher would like to advises interested researchers to extend this study by include more than one University and see the differences and similarities that may exist among the Universities concerning the issues treated in this study.

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*Full Length Research*

# An Investigation Into The Attitude of Post-Graduate Students Towards Child Labour In Purulia District of West Bengal

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Accepted 28 October 2015

Child labour refers to the employment of children in any work that deprives children of their childhood, interferes with their ability to attend regular school, and that is mentally, physically, socially or morally dangerous and harmful. In the present study an attempt to know the attitude of Post-Graduate Students towards Child Labour in Purulia District of West Bengal. 150 P.G. Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal were taken as representative sample for the whole population. Stratified random sampling technique was followed for selecting the Departments. An attitude scale towards Child Labour was used for collecting the data. The means of both groups were tested for significance of difference by using CR test. Results indicated that the attitude of P.G. Male and Female, General and SC/ST students were statistically not significant. The attitude of P.G. Rural and Urban, Arts and Science students were statistically significant and the attitude of Post-Graduate Students towards Child Labour was satisfactory or average.

**Keywords:** Attitude, Child, Child Labour, Post-Graduate Student, Poverty

**Cite This Article As:** Sarkar S, Behera SK (2015). An Investigation Into The Attitude of Post-Graduate Students Towards Child Labour In Purulia District of West Bengal. *Inter. J. Acad. Res. Educ. Rev.* 3(10): 282-291

## INTRODUCTION

*“Child slavery is a crime against humanity. Humanity itself is at stake here. A lot of work still remains, but I will see the end of child labor in my lifetime”.* --- Kailash Satyarthi

Children are blooming flowers of the garden of society and valuable asset of a nation. Children are mirror of a nation. They are our future and our most precious

resources. The quality of tomorrow's world and perhaps even it's survival will be determined by the well- being, safety and the physical and intellectual development of children today (Peter H.Wolff, and Gehremeskel Fesseha, 1998). They are also the greatest gift to humanity and Childhood is an important and impressionable stage of human development as it holds the potential to the future development of any society.



Children who are brought up in an environment, which is conducive to their intellectual, physical and social health, grow up to be responsible and productive members of society. Every nation links its future with the present status of its children. (Government of India, Planning Commission, Working Group for Social inclusion of Vulnerable Group like Child Labour and Bonded and Migrant Labour in the 12<sup>th</sup> Five Year Plan (2012-17). Child labor is an insidious problem all over the globe, especially in developing countries. Africa and Asia together account for over 90% of total child employment. Child labor is especially prevalent in rural areas where the capacity to enforce minimum age requirements for schooling and work is lacking. Children work for a variety of reasons, the most important being poverty and the induced pressure upon them to escape from this dilemma. Though children are not well paid, they still serve as major contributors to family income in developing countries. Schooling problems also contribute to child labor, whether it is the aloofness of schools or the lack of quality education which spurs parents to enter their children in more money-making pursuits. Traditional factors such as strict cultural and social roles in certain countries further limit educational attainment and increase child labor. Child labour is a global practice and has many negative outcomes. According to International Labour Organization, child labour is the important source of child exploitation and child abuse in the world today. Child labour is recognized as a serious and enormously complex social problem in India like serious respiratory diseases, T.B., and Cancer. Children, under age 14 are often forced to work for as many as 18 hours a day.

A Nations most grotesque scenario is its incorporation of child labour which is very pathetic and from the fore concerned. We can conclude that India is no exception that means it's a nuclear of the mention phenomenon. Here a child is treated like a slum dog instead of angels. It is accurse to make these genial and innocent little beings a centre of import and export business. "The Child is Father of the Man" said William Wordsworth. Children begin by loving their parents; as they grow older they judge them; sometimes they forgive them. Mahatma Gandhi says, "If we are to teach real peace in this world, and if we are to carry on a real war against war, we shall have to begin with the children" (Ali, Hasnaim & Khan Samsudin, 2012). Due to an increase in child labour in India, the future of children seems to be in dark prevalence of Child Labour is one of the most important problems confronting the world at large, especially developing countries such as India. In many cases, child labor is mainly necessitated by economic compulsions of the parents. The main reason which gives rise to child labour is widespread unemployment and among the adult poor strata of the population, interalia, due to sharp growth of population. Large families with low income and often lack of educational facilities, illiteracy and ignorance

of parents about the importance of education as well as about the impact of labour on the health of their children are some of the reasons which breed child labour. Over the years, however, global consciousness about the seriousness of the problem has created. The constitution of India also committed to the protection and promotion of the welfare considerations over the economic ones. Therefore, series of committees and commissions have been appointed by the government of India either specifically on the question of child labours, which gives us insights into the problem and to give suggestions to alleviate this problem (Naidu, M.C. and Ramaiah Dasaratha, K., 2006).

### WHO IS A CHILD?

International conventions define children as aged 18 and under. Individual governments may define "child" according to different ages or other criteria. "Child" and "childhood" are also defined differently by different cultures. A "child" is not necessarily delineated by a fixed age. Social scientists point out that children's abilities and maturities vary so much that defining a child's maturity by calendar age can be misleading.

### CONCEPT OF CHILD LABOUR

- Child labour refers to the employment of children in any work that deprives children of their childhood, interferes with their ability to attend regular school, and that is mentally, physically, socially or morally dangerous and harmful. ([https://en.wikipedia.org/wiki/Child\\_labour](https://en.wikipedia.org/wiki/Child_labour)).
- Child labour implies that who are in the age group below 14 yrs and who work for themselves or for their family for an income and who contribute a significant share to the labour force of India. (<http://www.ilo.org/ipec/facts/lang--en/index.htm>).
- Any child out of school is a child labour. The definition of child labour therefore encompasses every non-school going child irrespective of whether the child is engaged in wage or nonwage work or whether he or she is working for the family of others, employed in hazardous or non-hazardous occupations, employed on a day wage or on a contract basis is a child labour ( Naidu, M.C. and Ramaiah Dasaratha, K., 2006).
- According to International Labour Organisation (ILO) - The term "child labour" is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development. It refers to work that: is mentally, physically, socially or morally dangerous and harmful to children; and interferes with their schooling by depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to

combine school attendance with excessively long and heavy work.

- [ILO Conventions](#) defined Child Labour is a work that children should not be doing because they are too young to work, or – if they are old enough to work – because it is dangerous or otherwise unsuitable for them. Not all work done by children should be classified as child labor that is to be targeted for elimination. Children's or adolescents' participation in work that does not affect their health and personal development or interfere with their education is generally regarded as being something positive. Whether or not particular forms of "work" can be called "child labour" depends on the child's age, the type and hours of work performed and the conditions under which it is performed. (UN Resources for speakers on Global Issues on Child Labour, 2008, <http://www.un.org/en/globalissues/briefingpapers/childlabour>). From table -1, it is clear that, in West Bengal, the child labour has been rising since 1971 (511443) to 2001 (857087) and decreasing in 2011 (234275).

From the above discussion, it is clear that proper understanding / awareness of the problem of Child Labour is inevitable. Since, the Post-Graduate level is crucial stage of the present educational system in our country, it need special attention. The problems of Child Labour acute in all over the world. It is found that there are different reasonable opinions in this regards. But we cannot come to a conclusion about the entire Post-Graduate Students attitude towards Child Labour from several comment or discussions with handful students only. Many questions are arising in the researchers mind about the student's attitude towards Child Labour at Post Graduate Level. Still now it is very important and sensitive issue. It is an urgent need for developing certain strategies which can remove the problem of Child Labour. Therefore, in order to know the attitude of Post Graduate students towards Child Labour, the investigators have decided to take up a systematic and objective attitudinal study of Post Graduate Students towards Child Labour. The investigators intend to restrict their research work to Purulia District of West Bengal.

#### **STATEMENT OF THE PROBLEM:**

The problem for the present study may be specifically stated as below:

“An Investigation into the Attitude of Post-Graduate Students towards Child Labour in Purulia District of West Bengal”.

#### **NEED AND SIGNIFICANCE OF THE STUDY**

India is sadly the home to the largest number of child labourers in the world. As a consequence of

development, Child Labour is a symbol and symptom of inequality in which hundreds of children are excluded from a regular Childhood and denied their fundamental right in highly stratified society like India specially West Bengal. Considering the continuation of the practice of bonded Labour in the agrarian rural structure in India, such development will adversely affect children who belong to the deprived communities Industrial units have also started to employ Child Labour. Thus, the existing rigid social makeup of the caste system still percolates into other social problems like Child Labour. Poverty and lack of social security are the main causes of child labour. In order to tackle these complex and inner woven problems there is need to make the preventive measures and solutions to these problem deeply rooted in the minds of the population This justifies the need for Child Labour, which should focus on Child security and how to line in a world infested with diversity. Hence, the researchers chose this topic for their study. Today's Post Graduate students or any students as far as education concerned are the future of India once they will understand the worth and need of Child security, they will want to make the world a better place, a place there is nothing inequalities. P.G. level students are far more mature than other pupils who are studying in lower levels of education. They will understand the problem of Child Labour and the worth of the study.

Therefore the researchers feel that particularly the P.G. students' opinions or their attitude towards Child Labour can never be ignored, rather these should be reviewed or re-explored time to time, it is this feeling that has urged the investigators to take up the present study on a particular region of West Bengal. It is expected that, this study through small, will be able to make some significant contributions in the field of education.

#### **REVIEW OF RELATED LITERATURE**

A study of the Committee on child labour (1979) appointed by the Ministry of Labour, Government of India examined various dimension of child labor in different occupations. Findings were: The study revealed that the incidence labour was highest in Andhra Pradesh, where it accounted for about 9 percent of the total labour force, 9.2 per cent of the total child population and 3.7 percent the of the total population of the state in 1971. The child labour was more prevalent in rural areas than in urban areas. The participation of children in the labour force in the age group of 10- 14 years was very high (28.9%) for males as compared to females (20%). Weiner, M. (1990) has conducted a study on the child and the state in India. Objective: Historically in our country child labor has been seen as an Economic Phenomenon. Finding: The relationship between children and work is dictated to a great extent by the state of Economic development or the

system of production prevalent in the country. Vemuri, S and Anand, A (1998) A Survey on Child Labour. Objective: Child labour contributes of GNP (Gross National Product) in India. Finding: Reveals that child labour contributes to over 20 percent of GNP in India. Ali, Hasnaim & Khan, Samsuddin (2012), the overcoming of child labour in India: In perspective of constitutional and legislative Framework. Objectives: (i) Give the scenario in which child labour gets increased. (ii) Various challenges that have emerged due to this particular problems like Violence, Child trafficking etc. Findings: (i) The various sections of the paper indicate how far we in eradicating child labour and how hard work we need to do for the welfare of the poor .Ignorant and unheard children. (ii)In this paper we have proposed few major few steps that may be proved worthy in reducing the child abuse, hence a safe and pure society. Kumari, M. (2013) Child labour: A Sociological study of Haryana, India. Objectives: (i) To study the Socio-Economic background and working conditions of respondent. (ii) To find out the factors responsible for child labour and consequences thereafter. (iii)To suggest remedial strategy based on the information gathered. Findings: (i) The child labour working at auto market, tea stall, and dhabas have been selected as per respondent. (ii) Most of them are illiterate and belonged to the age group of 10-14 years. (iii) When we analyse the caste of the respondent, it shows that majority of them were form schedule caste followed by backword class respondent. (iv) A large majority of our respondents belonged to nuclear family. (v) Large majority of our respondent having their parents alive. (vi) It is farther evidence from the research that a vast majority of the respondent belonged to the income group between Rs.25000/ per annum. (vii)Large majority of them were unmarried. (viii)Majority of them started their work as child labour in the age group between 13-14 years.

### DELIMITATIONS OF THE STUDY

(A) **Geographical Area:** The investigation was delimited to only Purulia district of West Bengal.

#### (B) Level of Education

(i) The study was restricted to the P.G. students of Sidho-Kanho-Birsha University of the said district.  
(ii) Among the P.G. Students only the Arts and Science streams (SEM-II and SEM-IV) Students of Sidho-Kanho-Birsha University were considered as the subjects of the present study.

#### (C) Type of Study

This study was conducted only at surface level. It was not an 'in-depth' study. Attempts to know the subject's

attitude by administering an attitude scale constructed by the researchers. No interstate / university comparison was done. Only intra- district / university comparison between the male-Students and female-students, between General and SC/ST students, rural and urban students, Arts and Science students were done.

### OBJECTIVES OF THE STUDY

1. To ascertain the attitude of P.G. Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.
2. To compare the attitude of P.G. Male- and Female- Students of Sidho-Kanho-Birsha University in Purulia district towards Child Labour.
3. To compare the attitude of P.G. Rural and Urban Students of Purulia district of West Bengal towards Child Labour.
4. To compare the attitude of P.G. General- and SC / ST- Students of Purulia district towards Child Labour.
5. To compare the attitude of P.G. Arts and Science streams Students of Purulia district towards Child Labour.

### HYPOTHESES OF THE STUDY

**H<sub>1</sub>:** The P.G. Students of Sidho-Kanho-Birsha University will have more favorable attitude towards Child Labour in Purulia district of West Bengal.

**H<sub>2</sub>:** There will be significant difference between the attitude of P.G. Male-and Female-Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.

**H<sub>3</sub>:** There will be significant difference between the attitude of P.G. Rural and Urban Students Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.

**H<sub>4</sub>:** There will be significant difference between the attitude of P.G. General- and SC / ST- Students of Purulia district towards Child Labour.

**H<sub>5</sub>:** There will be significant difference between the attitude of P.G. Arts and Sciences Students towards Child Labour.

### METHODOLOGY

The present study is based on survey method, particularly, the normative survey research method. It is the most popular and scientific research technique, which consist of analyzing the phenomena into their components. The survey of educational problems is one of the most commonly used approaches.

## POPULATION OF THE STUDY

The P.G. Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal comprised the population of this study.

## SAMPLE AND SAMPLING PROCEDURE

150 P.G. Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal were taken as representative sample for the whole population. Stratified random sampling technique was followed for selecting the Departments. There are a number of P.G. Students in each Department. Only 150 students of Arts (75) and Science (75) streams were selected following purposive sampling technique.

## TOOL USED

An Attitude Scale (Likert Type) was used for knowing the attitude of the P.G. Students towards Child Labour. In the scoring procedure, Likert's method was used. In this method, a number of statements or items regarding the issue have to be constructed. The subject is asked to indicate the degree of agreement towards each item on a five point scale: Strongly agree, agree, neutral, disagree and strongly disagree weight age was given in the following manner: Favourable item (in this study those items are against Child labour / regarded child labour as a problem): 5, 4, 3, 2, 1 & in case of Unfavourable item (those items support the child labour): 1, 2, 3, 4, 5. The tool consisted of 30 Items (16 favourable and 14 unfavourable).

## STATISTICAL TECHNIQUE

CR test was used to analyze the collected data and verify the hypotheses.

## ANALYSIS OF DATA

1. To ascertain the attitude of P.G. Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.

**H<sub>1</sub>:** The P.G. Students of Sidho-Kanho-Birsha University will have more favorable attitude towards Child Labour in Purulia district of West Bengal.

Through the help of cut-off point the Investigators verified the H<sub>1</sub>. Here Cut-off Point is  $M + 1\sigma$ . It means, Mean=105.64, N=150 and  $\sigma=10.16$  Hence  $M + 1\sigma$  is  $105.64 + 1 \times 10.16 = 115.8$ . And  $M - 1\sigma = 105.64 - 10.16 = 95.48$ . Most of P.G. students (112 in number) i.e.,

74.67 % of students were lies between 115.8 to 95.48 scores. Hence, it can be said that the attitude of P.G. students of S.K.B. University in Purulia district of West Bengal is neither more favourable nor unfavourable towards Child Labour i.e., satisfactory or average in attitude towards Child Labour (see table-2).

2. To compare the attitude of P.G. Male- and Female-Students of Sidho-Kanho-Birsha University in Purulia district towards Child Labour.

**H<sub>2</sub>:** There will be significant difference between the attitude of P.G. Male-and Female-Students of Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.

The table 3 shows that there is no significant difference between the attitude of P.G. Male- and Female- students of Sidho-Kanho-Birsha University in Purulia district towards Child Labour, the M-Att. Score of P.G. Female being greater than that of P.G. Male- students. Hence, it can be said that, the attitude of P.G. Female- students of Sidho-Kanho-Birsha University in Purulia district towards Child Labour is comparatively more favorable than that of P.G. Male students of Sidho-Kanho-Birsha University in Purulia district.

3. To compare the attitude of P.G. Rural and Urban Students of Purulia district of West Bengal towards Child Labour.

**H<sub>3</sub>:** There will be significant difference between the attitude of P.G. Rural and Urban Students Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.

The Table 4 indicates that there is significant difference between the attitude of P.G. Rural students of Sidho-Kanho-Birsha University and P.G. Urban students of Sidho-Kanho-Birsha University towards Child Labour. The M.Att. Score of P.G. Urban – students of Sidho-Kanho-Birsha University being greater than that of P.G. Rural- students of Sidho-Kanho-Birsha University. Hence, it can be said that, the attitude of P.G. Urban- students of Sidho-Kanho-Birsha University is relatively more favorable than the P.G. Rural – students of Sidho-Kanho-Birsha University in Purulia District towards Child Labour.

4. To compare the attitude of P.G. General- and SC / ST- Students of Purulia district towards Child Labour.

**H<sub>4</sub>:** There will be significant difference between the attitude of P.G. General- and SC / ST- Students of Purulia district towards Child Labour.

The Table 5 shows that there is no significant difference between the attitude of P.G. General students and P.G. S.C./ S.T. students (as a whole) of the Sidho-Kanho-Birsha University in Purulia district toward Child Labour. The M.Att score of P.G. General – students of Sidho-Kanho-Birsha University being greater than that of P.G. S.C/S.T- students of Sidho-Kanho-Birsha University. Hence, it can be said that, the attitude of P.G. General- students of Sidho-Kanho-Birsha University is comparatively more favorable than the P.G. S.C/S.T –

**Table –1:** State wise details of working children in the age group of 5-14 years as per Census 1971, 1981, 1991, 2001 and Census 2011 in India are as under:

SI.No.	Name of the State/UT	No. of Working Children in the age group of 5-14 years				
		1971	1981	1991	2001	2011
1	Andaman & Nicobar Island	572	1309	1265	1960	999
2	Andhra Pradesh	1627492	1951312	1661940	1363339	404851
3	Arunachal Pradesh	17925	17950	12395	18482	5766
4	Assam *	239349	**	327598	351416	99512
5	Bihar	1059359	1101764	942245	1117500	451590
6	Chandigarh U.T.	1086	1986	1870	3779	3135
7	Chhattisgarh				364572	63884
8	Dadra & Nagar H.	3102	3615	4416	4274	1054
9	Daman & Diu U.T.	7391	9378	941	729	774
10	Delhi U.T.	17120	25717	27351	41899	26473
11	Goa			4656	4138	6920
12	Gujarat	518061	616913	523585	485530	250318
13	Haryana	137826	194189	109691	253491	53492
14	Himachal Pradesh	71384	99624	56438	107774	15001
15	Jammu & Kashmir	70489	258437	**	175630	25528
16	Jharkhand				407200	90996
17	Karnataka	808719	1131530	976247	822615	249432
18	Kerala	111801	92854	34800	26156	21757
19	Lakshadweep UT	97	56	34	27	28
20	Madhya Pradesh	1112319	1698597	1352563	1065259	286310
21	Maharashtra	988357	1557756	1068427	764075	496916
22	Manipur	16380	20217	16493	28836	11805
23	Meghalaya	30440	44916	34633	53940	18839
24	Mizoram ***		6314	16411	26265	2793
25	Nagaland	13726	16235	16467	45874	11062
26	Odisha	492477	702293	452394	377594	92087
27	Pondicherry U.T.	3725	3606	2680	1904	1421
28	Punjab	232774	216939	142868	177268	90353
29	Rajasthan	587389	819605	774199	1262570	252338
30	Sikkim	15661	8561	5598	16457	2704
31	Tamil Nadu	713305	975055	578889	418801	151437
32	Tripura	17490	24204	16478	21756	4998
33	Uttar Pradesh	1326726	1434675	1410086	1927997	896301
34	Uttarakhand				70183	28098
<b>35</b>	<b>West Bengal</b>	<b>511443</b>	<b>605263</b>	<b>711691</b>	<b>857087</b>	<b>234275</b>
<b>Total</b>		<b>10753985</b>	<b>13640870</b>	<b>11285349</b>	<b>12666377</b>	<b>4353247</b>

Note: \* 1971 Census figures of Assam includes figures of Mozoram.

\*\* Census could not be conducted.

\*\*\* Census figures 1971 in respect of Mozoram included under Assam.

(Source : Census India, State-wise Distribution of Working Children according to 1971, 1981, 1991, 2001 & 2011 Census in the age group 5-14 years, Ministry of Labour and Employment, Govt. of India)

students of Sidho-Kanho-Birsha University in Purulia District towards Child Labour.

5. To compare the attitude of P.G. Arts and Science streams Students of Purulia district towards Child Labour.

H<sub>5</sub>: There will be significant difference between the

attitude of P.G. Arts and Sciences Students towards Child Labour.

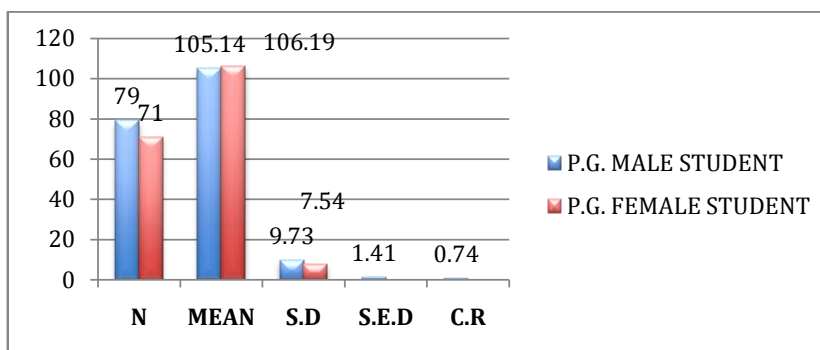
The table 6 shows that there is significant difference between the attitude of P.G. Arts and Science students of Sidho-Kanho-Birsha University in Purulia district towards

**Table- 2:** The attitude of P.G. level student of Sidho-Kanho-Birsha University in Purulia district of West Bengal towards Child Labour.

Category	N	Mean	SD
Students	150	105.64	10.16

**Table – 3:** Showing significance of difference between the attitude of P.G. Male and Female students of Sidho-Kanho-Birsha University in Purulia district.

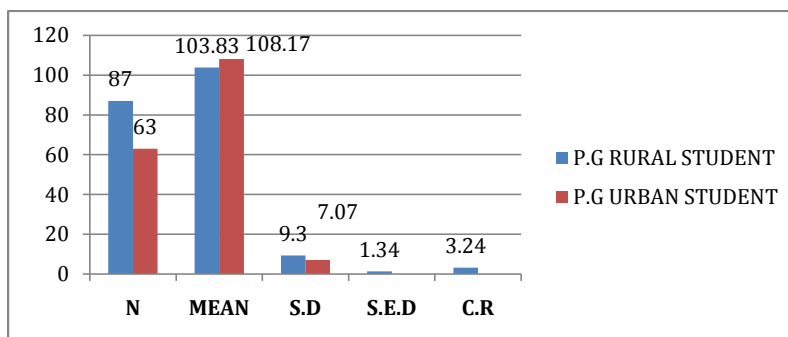
GROUP	N	MEAN	SD	S <sub>ED</sub>	CR	REMARK
P.G Male Students	79	105.14	9.73	1.41	0.74	Not Significant at 0.05
P.G Female Students	71	106.19	7.54			



**Figure-1:** Showing significance of difference between the attitude of P.G. Male and Female students of Sidho-Kanho-Birsha University in Purulia district.

**Table- 4:** Showing significance difference between the attitude of P.G. Rural and Urban students of Sidho-Kanho-Birsha University in Purulia District.

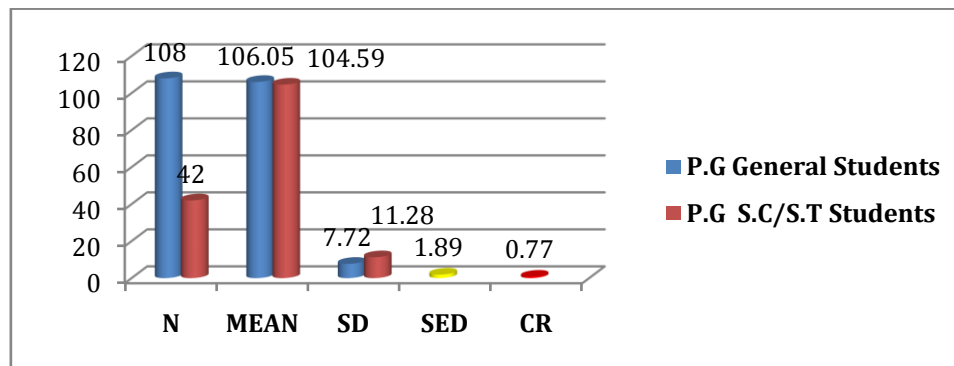
GROUP	N	MEAN	SD	S <sub>ED</sub>	CR	REMARK
P.G Rural Students	87	103.83	9.30	1.34	3.24	Significant at 0.01 & 0.05 level
P.G Urban Students	63	108.17	7.07			



**Figure-2:** Showing significance difference between the attitude of P.G. Rural and Urban students of Sidho-Kanho-Birsha University in Purulia District.

**Table 5:** Showing significance of difference between the attitude of P.G. General students and P.G. S.C./S.T. students of Sidho-Kanho-Birsha University in Purulia district.

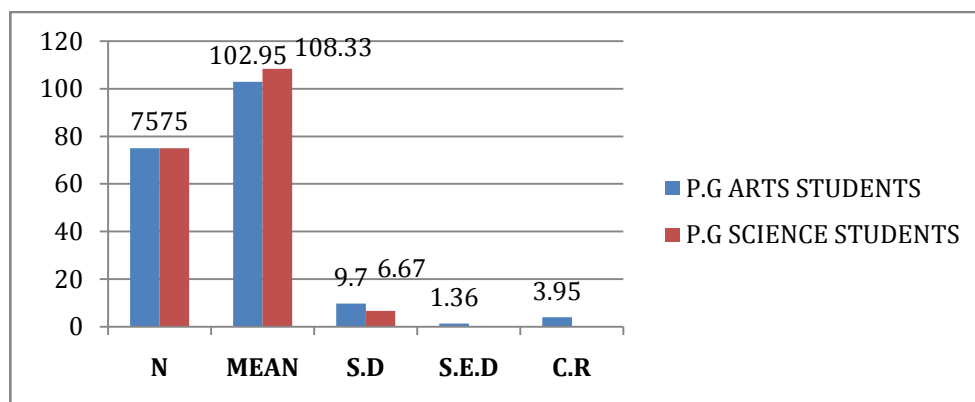
GROUP	N	MEAN	SD	S <sub>ED</sub>	CR	REMARK
P.G General Students	108	106.05	7.72	1.89	0.77	Not Significant at 0.05
P.G S.C./S.T Students	42	104.59	11.28			



**Figure-4:** Showing significance of difference between the attitude of P.G. General students and P.G. S.C./S.T. students of Sidho-Kanho-Birsha University in Purulia district.

**Table- 6:** Showing significance of difference between attitude of Arts Students and Science students of the Sidho-Kanho-Birsha University in Purulia district.

GROUP	N	MEAN	SD	S <sub>ED</sub>	CR	REMARK
P.G Arts Students	75	102.95	9.70	1.36	3.95	Significant at 0.01 & 0.05 level
P.G Science Students	75	108.33	6.67			



**Figure-5:** Showing significance of difference between attitude of Arts Students and Science students of the Sidho-Kanho-Birsha University in Purulia district.



Child Labour. The M.Att score of P.G. Science – students of Sidho-Kanho-Birsha University being greater than that of P.G.Arts- students of Sidho-Kanho-Birsha University. Hence, it can be said that, the attitude of P.G. Science - students of Sidho-Kanho-Birsha University is comparatively more favorable than the P.G.Arts – students of Sidho-Kanho-Birsha University in Purulia District towards Child Labour.

## DISCUSSION

Analysis of data shows that, the attitude of P.G. students of S.K.B. University in Purulia district of West Bengal is neither more favourable nor unfavourable towards Child Labour i.e., satisfactory or average in attitude towards Child Labour. The P.G. students are agreed that child labour is neither good nor bad. They are average in attitude towards child labour.

There is no significant difference between the attitude of P.G. Male- and Female- students of Sidho-Kanho-Birsha University in Purulia district towards Child Labour. The attitude of P.G. Female- students towards Child Labour is comparatively more favorable than that of P.G. Male students of Sidho-Kanho-Birsha University in Purulia district. It may seem to be that the P.G. Female students of Sidho-Kanho-Birsha University have more conscious about the problem of Child Labour than P.G. Male students. On the basis of this finding, it can be said whatever be the attitude of the students regarding this important issue, little difference (and therefore, little change in attitude) is found among students so far as gender concerned.

The present study indicated that there is significant difference between the attitude of P.G.Rural students of Sidho-Kanho-Birsha University and P.G. Urban students of Sidho-Kanho-Birsha University towards Child Labour. The attitude of P.G.Urban- students of Sidho-Kanho-Birsha University is relatively more favorable than the P.G. Rural – students of Sidho-Kanho-Birsha University in Purulia District towards Child Labour. It seems to be that the P.G. Rural students of Sidho-Kanho-Birsha University have no more conscious about the problem of Child Labour and its impact to the society and the nation than P.G.Urban students.

However, it is found that there is significant difference between the attitude of P.G. General students and P.G. S.C./ S.T. students (as a whole) of the Sidho-Kanho-Birsha University in Purulia district toward Child Labour. The attitude of P.G. General- students of Sidho-Kanho-Birsha University is relatively more favorable than the P.G. S.C/S.T – students of Sidho-Kanho-Birsha University in Purulia District towards Child Labour. It is due to the more awareness of child rights among the P.G. General students.

The major findings of this study revealed that there is

significant difference between the attitude of P.G. Arts and Science students of Sidho-Kanho-Birsha University in Purulia district towards Child Labour. The attitude of P.G. Science - students of Sidho-Kanho-Birsha University is relatively more favorable than the P.G.Arts – students of Sidho-Kanho-Birsha University in Purulia District towards Child Labour. It may seem to be that the P.G.Arts students of Sidho-Kanho-Birsha University have no more conscious about the problem of Child Labour. On the other hand P.G. Science students have more awareness about the problem of child labour in their society.

## EDUCATIONAL IMPLICATIONS OF THE STUDY

1. This study was important because it should be improved the Childs security.
2. Developing awareness among the teachers, parents, and students about the Child Labour
3. Providing knowledge about Childs Rights and Duties.
4. This study was important because it suggests some remedial measures for improving the condition of Poverty and lack of social security.
5. More activities should be organized in order to improve the awareness of child labour among the P.G. Male, Rural, SC / ST and Arts students of SKB University.

## SUGGESTIONS FOR FURTHER STUDIES

The following studies may be undertaken by the future researchers to further strengthen the research areas of the Child Labour:

1. The same study can be extended to the remaining other districts.
2. Further study can be undertaken in various levels of education.
3. Further study can be conducted to measures students Aptitude, Emotion etc. towards Child labour.
4. The study was conducted to the only Arts and Science stream students; it may be extended to the other streams of education.
5. Comparative surveys on this problem can be undertaken in different states of India.
6. Indepth studies may be conducted in order to know real attitude of the subjects. A team work may be required for this purpose.

## CONCLUSION

Children are backbone of the nation. The progress and the future of the country depend upon how the child of



today develops and taken care. In spite of all this, the children have been subjected to many hardships to earn their livelihood. In India, millions of children are working in different occupations are all over the country. From the facts given above, it is unambiguously clear that incidence of full-time child labour in India particularly West Bengal has been declining for the last decade but continues to be overwhelmingly rural phenomena. There is predominance of rural boys and girls still working within the family modes of employment. Various committees and Commissions on Child Labour have been working in order to abolish Child labour in our country. The Act, 1986, is to ban employment of children below the age of 14 years in factories, mines and hazardous employments, and regulate the working conditions of children in other employments. The Government Authorities identified all the hazardous sectors and have to take appropriate measures for preventing the child labour in their working place. The Govt. also identified the Below Poverty Level (BPL) families and to help them economically as well as morally. NGOs are playing an important role in order to remove this problem. Free and Compulsory education one of the most useful instruments for removing child labours. But it is a matter of great regrets that child labour still prevailing in rural areas. However, the patchy nature of our approach to diverse facets of child welfare, rural education, rural development and child labour policies at the local level needs to be recognized and machinery for a co-ordinated effort at the village level has to be put in place. Without such a synchronized effort, we cannot successfully deal with the issues of child development of which child labour is a component. It is the high time to remind the quote of Poet Rabindranath Tagore:

*“A nation’s child is its supremely important asset and the nation’s future lies their proper development. An investment in children is indeed an investment in the nation’s future. A healthy and educated child of today is the active and intelligent child of tomorrow. Bestow blessing on those little, innocent lives bloomed on earth, who have brought the message of joy from heavenly garden.”*

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*Full Length Research*

## The Pandemic Nature of HIV and AIDS: The Nigeria's Perspective in the 21<sup>st</sup> Century

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Accepted 17 November 2015

This paper examines what HIV/AIDS is all about, the origin, history of HIV/AIDS in Africa and Nigeria. The cause of AIDS, the pathogenesis of the infection, the role of cultural practices that may increase the risk of HIV infection, how it is being transmitted were discussed. The difference between HIV infection and AIDS, stages of the infection, sign and symptoms of AIDS and the common diseases associated with AIDS( opportunistic infections), the prevalence and burden of HIV/AIDS, including the factors contributing to high prevalence of the infection, the treatment for AIDS and the problems of Anti Retro Viral therapy were also discussed. It was concluded with few recommendations made as follows: The ABC of AIDS should be stress through public campaign where, "A" is for Abstinence, "B" is for being faithful and "C" for using condom so as to kick out the virus from the continent. Voluntary counseling and testing should be encouraged to make people know their HIV status. Government should layout a strategy that can make the people with the virus not to spread it and those without the virus protected and ensure anti retro viral drugs are made available to the people for free, so that they are able to live a longer life. Youths should be taught on how to stay safe and from indiscriminate sexual habits to protect themselves.

**Key Words:** HIV, AIDS, PADEMIC, NIGERIA'S PERSPECTIVE.

**Cite This Article As:** IKEMIKE, D. O. (2015). The Pandemic Nature of HIV and AIDS: The Nigeria's Perspective in the 21<sup>st</sup> Century. *Inter. J. Acad. Res. Educ. Rev.* 3(10): 292-305

### INTRODUCTION

HIV/AIDS disease is the most devastating personal and public health problem we have faced this century, and AIDS had secured its place as one of the significant and semester medical puzzles of this or many other generations. It could be termed "a global crisis" with victims all around the entire globe. It has also achieved prominence as providing some of the most compelling examples of interaction between biomedical and psychological variables (Cawley, 1998). At present, there is no cure for AIDS nor a vaccine to prevent it. In the absence of a cure, the only option is to prevent it. HIV

stands for 'Human Immune Deficiency Virus'. Viruses are the smallest of all the ineffective organisms. A quarter of a million of them can be picked up on pinhead. They can not be seen with ordinary eyes, and thus are not very easy to study or identify, (Gerd,& Stephen, 2011).

It is estimated that the people infected with HIV but unaware of their status are contributing to more than 50% of new infections. (Oramasionwu, Brown, & Ryan, 2009). This implies that people infected, but unaware, are

unknowingly passing on HIV to others. We know that when they find out they are infected with HIV, many people will change their behaviour to protect their partners from being infected. Additionally, awareness of HIV status affords the opportunity to begin HIV/AIDS treatment to lower viral load, the main biologic predictor of HIV transmission. At present, there is no cure for AIDS nor a vaccine to prevent it. In the absence of a cure, the only option is to be aware of the preventive measures to curb the infection.

### Concept of HIV/AIDS

AIDS stands for 'Acquired Immune Deficiency Syndrome', also called the 'Slim Disease' in some countries is a medical diagnosis for a combination of illness which results from a specific weakness or destruction of the body's immune system by strange viruses known as the HIV. HIV is a family of many similar viruses. HIV type 1 is found in most countries of the world and HIV type 2, is found mainly in West Africa. According to Robert (2001), AIDS was recognized in the early 1980s in the group of homosexual men in Los Angeles and New York. It was however at that time, present in at least four other continents. Since then, AIDS has proven to be the major pandemic of the 20<sup>th</sup> and 21<sup>st</sup> centuries having been contacted by 880,000 in the Caribbean, 1.5million in Latin America etc. Recently, the Federal Government disclosed that 86 per cent of Nigerians are ignorant of their HIV status. This was disclosed at an international symposium to brainstorm on new strategies to combat the scourge. According to the participants, this could spell doom for the country if the practice of ignorance on HIV testing and counseling continues. (Christy, 2010 December 22<sup>nd</sup>).

There has never been a medical cure for any viral infection. However the body's defense system usually deals with them, but in recent years there has been remarkable advances in anti-HIV treatment, the most important development being the use of combination of drugs that attack the virus in different ways. Anti-HIV drugs act by blocking the enzymes the virus needs for its replication. This has become much more successful since 1996 when a new class of drugs – the protease inhibitors, was introduced (Briggs 1999). He further states that, in spite of all the advances in treatment, AIDS is still a terrible disease and the consequences of acquiring HIV infection are devastating. This is one situation in which cure really applies. Sexual promiscuity appears to be here to stay but people who know the facts about AIDS and who continue to behave in this way are taking chances with their lives, that many of them will regret, particularly the youths who are of high risk, and anti-natal mothers that are rendering themselves and that of the unborn baby at risk.

According to Harley, (2007); giving people information about HIV and the risk involved in unsafe sexual intercourse is important. According to him, even when people know the risk of unsafe sexual intercourse and want to practice safe sex, it is often very difficult. He therefore looked at some approaches and activities that can help people prevent HIV/AIDS. One of his approaches was building people's knowledge or awareness and skills, so that they feel more confident to discuss safer sexual intercourse, as one of the major routes of non transmission of HIV.

United Nation Agency for International Development (UNAID, 2006) reported that 7,000 young people worldwide contact HIV everyday (i.e. 5 infections per minute) among people aged between 18 – 29 years of the 30million HIV infected individuals in the world. According to them, at least one third ( $\frac{1}{3}$ ) are of child bearing age.

Sonny, (2000) noted that the first cases of AIDS were known in USA in 1981.

The virus was identified in 1983 at Institute Pasteur in Paris, initially named Lymphadenopathy Associated Virus (LAV), T-Lymphotropic virus type 3 (HTLV – III) and in 1986 named HIV.

### Historical Perspective of HIV/AIDS

Human beings have the tendency to blame people when a misfortune occurs which cannot be explained and this is especially true of HIV. HIV stands for Human Immune Deficiency Virus. It is a retrovirus originally isolated in Paris in May 1983 by Luc-Montagnier. The origin of HIV has become a matter of intense international debate (Adeyemi, 1993). HIV is a new disease and since it was identified in 1981, there has been several theories, guesses and hypothesis as to the origin. According to Osmond as cited in Cohem (2011), HIV was first recognized as a new clinical syndrome in the United State in 1981. The first case of Pneumocystic Carinii, Pneumonia and Kaposi Sarcoma (KS) was diagnosed among homosexual men. According to him, looking back at earlier reports, researchers have identified cases appearing to fit the AIDS surveillance definition, as early as the 1950s and 1960s. Frozen tissue and serum samples were available, for one of those possible early AIDS cases, a 15year old black male from St. Louis, who was hospitalized in 1968 and died of an aggressive disseminated Kaposi-Sarcoma (KS). He further stated that the tissue and serum specimens were HIV – antibody positive on western blot and antigen positive on ELISA. This appears to be the first confirmed case of HIV infection in the United State. The virus was identified in 1983 by Dr. Françoise Barre-Sinoussi (1950) working in the Pasteur Institute in Paris. Two years later, she proved that it was the cause of AIDS. She is now head of the

Retrovirus Biology Unit in the institute.

According to Keith (2004), the significance of the origin of AIDS gives a clear understanding of the mechanism by which the AIDS epidemic emerged is necessary, if the future preventive methods are to be directed towards useful goals. He opined that the cause of epidemic is generally related to changes in human behavior. Microbes fervently change their behavior as a result of change in the activities of their host. That AIDS did not come from nowhere, but arose as a consequence of social changes, which permitted the rapid dissemination of HIV. AIDS was first identified as a distinct syndrome in 1981, as the consequence of a cluster of cases amongst gay men in large US cities with highly visible and established gay communities. Subsequent review of the medical literature has revealed a plethora of inexplicable Aids like illness dating back to the late 1940s in the United States and Europe.

According to Adeyi, Khanki, Odutolu and Idoko (2006). The oldest AIDS case for which an HIV diagnosis has been confirmed is that of an American youth who died in 1969. The case of a Manchester sailor who was believed to have died of AIDS in 1959 has recently been called into doubt, following the discovery that the strain of HIV isolated from stored tissue samples was virtually identical to strains prevalent thirty years later. US researchers have argued that such a similarity is implausible unless the virus was a laboratory contaminant, because HIV would normally emulate considerably during a thirty year period. Other early HIV cases in which HIV has been isolated include a Nigerian family – father, mother and child, who all died in 1976. A Portuguese man who fell ill in 1978 has been retrospectively diagnosed as one of the earliest cases of AIDS caused by HIV – 2. The identified cases in which HIV was present are important because they challenge the belief that HIV is a virus, which was introduced into the West in the 70s. Although some of these cases indicated contact with Africa, the 1969 case of an American youth shows no evidence of an African connection. AIDS Treatment Update (2012), states that:

*“African doctors tend to agree that AIDs did not appear in Africa before the late 1970s, and that it became epidemic only in the early 1980s. In the early years of the epidemic, the Syndrome was known as ‘Slim disease’ in Uganda and other Central African countries. It first appeared in Uganda, and in Kinshara, which lies at the crossroad of trade routes linking East Africa, West Africa, Angola and Zaine.”*

It is of good reasoning that AIDS cases could have occurred at a low level in the population before 1940s without exciting many suspicions because of a greater frequency of infectious diseases. It was only when

infectious diseases became less common that immune deficiency syndrome became more remarkable and worthy of note. Prior to the introduction of antibiotics, tuberculosis and syphilis may have marked minor clusters of HIV disease in the view of medical historian (Mirko, 2011).

Lamprey, Johnson and Khan (2006), states that as a person progresses from being HIV positive into AIDS, the effects – physical, psychological and social are catastrophic. The predictability, inevitability and the nature of the outcome has fueled the debate, which has been gathering pace generally in recent years, about the degree of control people have towards the end of their life, and over the manner of ending it. Nurses are also faced with the challenge of confronting HIV = AIDS = DEATH, and helping patients to maintain control of their lives to experience love and happiness and to value the quality and quantity of life that remains.

### **History of HIV in AFRICA**

According to Daley (2011), the origin of HIV is unknown. Although some authors have postulated an African origin, there is still no conclusive evidence that HIV originated in Africa. Findings in favour of an African origin include reports that describe the earliest serological evidence of HIV in Africa and a structurally similar Simian Immune Deficiency Virus was identified in African wild green monkeys. Regardless of where HIV arose, clearly sub-Saharan Africa is the area with the largest estimated number of AIDS cases. Daley also stated that several factors may have contributed to the rapid spread of HIV infection in sub-Saharan Africa.

First the urbanization of Africa with subsequent disruption of the traditional family unit led to an increase in prostitution, a known mode of transmission of HIV in Africa. In his own opinion, deteriorating health care in certain areas, which is as a result of high cost of medical care, and high level of poverty that encourage majority of practitioners, who use non aseptic techniques in their care. Political changes and wars were probably all important in the development of the current HIV epidemic in Africa.

### **History of HIV/ AIDS in NIGERIA**

In Nigeria, the former Health Minister, Late Professor Olikoye Ransome Kuti, in a press conference in December 1990, on World AIDs Day disclosed that, 516 persons tested sero-positive. Of this number, 84 patients have developed AIDS with 26 patients said to have died. It is often assumed that HIV is a very new virus, which has crossed over from animal to humans and spread fairly rapidly. Infact there are several theories about the

sources of HIV and the length of time the virus has been present in the human population. Nigeria has the third – largest number of people living with HIV. The HIV epidemic in Nigeria is complex and varies widely by region. In some states the epidemic is more concentrated and driven by high-risk behaviours, while other states have more generalized epidemic that are sustained primarily by multiple sexual partnerships in the general population. Youth and young adults in Nigeria are particularly vulnerable to HIV, with young women at higher risk than young men. There are many risk factors that contribute to the spread of HIV, including prostitution, high-risk practices among itinerant workers, high – risk heterosexual and homosexual practices, international trafficking of women, and irregular blood screening (Patrick, 2007).

According to Buki, (2001). A technical report of the Federal Ministry of Health in the 2001 National HIV/Syphilis Sentinel Survey among pregnant women attending ante-natal clinic in Nigeria reveals that; HIV seroprevalence from 1991 to 2001 increased from 1.8% - 5.8%. Percentage distribution of HIV infection by types reveals that, the prevalence of HIV – 1 is 97.50 of total HIV incidence in Nigeria. While HIV – 2 is 0.4% and confection of HIV 1 and 2 for 0.10%. HIV – 1 is the major type of HIV infection observed in Nigeria's HIV prevalence. Age specific prevalence among pregnant women in Nigeria is 7% between 15 – 30years. The South-South Zone recorded the highest age specific prevalence of 10.5%, 7.9%, 8.2% and 5.5% for age groups 15 – 19, 20 – 24, 25 – 29 and 30 – 34 years.

The size of the population poses logistical and political challenges particularly due to the political determination of the Nigerian government to achieve health care equity across geopolitical zones. The necessity to co-ordinate programs simultaneously at the Federal, state and local levels introduces complexity into planning. The private sector is largely unregulated and more importantly had no formal connection to the public health system where most HIV intervention are delivered. Training and human resource development is severely limited in all sectors and will hamper program implementation at all levels. Care and support is limited because existing staff are overstretched and most have insufficient training in key technical area to provide complete HIV services (Wesleys, 2008 ).

### **Pathogenesis of HIV/AIDS**

According to Olaleye (2003), this retro-virus called, Human Immune Deficiency Virus (HIV) causes AIDs, although the International Congress on Virus Nomenclature recommended a new name, Primate Immune Deficiency Virus (PIV) due to the frequency isolation of related viruses from non-human primates

such as monkeys and baboons. He went further to explain that there are two types of HIV which have been fully characterized and associated with AIDS. These are: Human Immuno type 1, (HIV – 1), and Human Immuno type 2, (HIV – 2).HIV – 1 is prevalent worldwide, while HIV – 2 is presently found in West Africa among people of West African origin.

The HIV virus when contacted affects major cells of the immuno system called T. Lymphocytes. There are two types of T. Lymphocytes:T. Helper (CD4<sup>+</sup>bearing) and T. Suppressor (CD5<sup>+</sup>bearing).

T. Lymphocytes modulate production or secretion of antibodies by B – lymphocytes. As the infection progresses, it attacks or binds the CD4<sup>+</sup>receptors of T-Helper cells and penetrates, replicates and produces progeny virus. During the process of replication, such infected T-Helper cells are destroyed, the immune system thus becomes imparted and any invading organism multiplies unabated. Simply put, the human body has an inbuilt ability to defend itself against infections and diseases (immunity) which protects the body from germs or disease causing organisms, such as bacteria, viruses, fungi, protozoa and other parasitic organisms, that are capable of invading the human body. These immune systems function as a defense mechanism against certain malignant cells in the body. These are the white cells in the blood, the lymphocytes which consistently patrol the body from their normal place of abode, the lymphoid organs, where they are produced. These are the T-lymphocytes (T-cells) and B-lymphocytes (B-cells) which have different actions. These white blood cells are produced in the lymph-nodes, the spleen and bone marrow, and the thymus gland (in children) (Tumer & Unai, 2000). Most of the T-lymphocytes, the T4 lymphocytes act as coordinator of the defense operations and consequently play a very important role in regulating immune functions. Hence the AIDs virus targets mainly these T-cells or T-Helpers and destroys them eventually, resulting to AIDs due to reduction in the number of T4 lymphocytes and the T-Helper cells (Tumer & Unai, 2000).

### **The route of transmission of HIV**

The AIDs virus (HIV) has been mainly detected in the blood, semen and vaginal secretions but small amount of HIV has also been detected in other body fluids such as tears, saliva etc. the amount of threshold necessary to induce infection (Achal, 2008).

HIV virus is transmitted through the under listed routes:

1. Heterosexual or homosexual transmission is the major mode of spread of the virus in urban areas i.e. through sexual intercourse

from an infected person to his or her partner (that is penetrative penile – vaginal, penile – anal or oral genital contact)

2. Transmission of blood products: This usually happens in the hospital when a patient is transfused with the blood of an infected person, which was not properly screened.
3. Maternally: This is from an infected pregnant woman to her unborn baby (foetus) or new born infant before, during or shortly after birth (prenatal transmission).
4. Through breast milk during breast feeding.
5. Multiple injections: This is common among drug addicts who share needles used in injecting one another.
6. Use of unsterile needles/syringes that is used for an infected patient to another, even if it is re-sterilized.
7. Scarification: Such as tattoos, tribal marks and circumcision.

There is no evidence that HIV/AIDS is spread through casual contacts. The HIV is not transmitted through the following:

Touching, hugging, shaking hands with someone with HIV/AIDs.

Playing or walking with a person with HIV/AIDs. Living with a person with AIDs, eating with someone infected with HIV, sharing same toilet seat, coughing or sneezing, mosquitoes or insect bites (Achal, 2008).

### **Role of Cultural Practices**

The cultural practice that may increase the risk of HIV infection in Africa include:

Polygamy, wife sharing, wife inheritance, widowhood, early marriage, male promiscuity, lack of female empowerment, superstitious belief, ignorance of STDs and negative attitude to sex education, permissive societal attitude towards sex. Use of skin-piercing devices contaminated with infected blood/blood products during: tribal markings, ear piercing, nose piercing, tattooing, circumcision, bloodletting, barbing, nail cutting (manicure and pedicure), treatment by quack doctors, female genital mutilation. (Achal, 2008)

### **How does HIV/AIDS kill?**

According to Shah (2006), AIDS or Acquired Immuno Deficiency Syndrome is the result of HIV progression, and AIDS is fatal. AIDs will kill a person if they contact an

opportunistic infection. HIV kills by weakening the body's immune system until it can no longer fight infections. At this stage opportunistic infections appear. When a person is infected with the HIV, it attacks and kills the immune cells (body soldiers) and leaves the body defenseless and open to attack by almost any infection such as bacteria, fungus or viral disease because the immune system is not working well

Full blown AIDS is characterized by appearance of opportunistic infections which normally do not attack healthy people. These infections take advantage of the weakened body resistance and the AIDS victim suffers a long period of painful illnesses and diseases, which eventually kill the victim. Also the body is exposed to other vulnerable and malignant tumors that can kill. More importantly, these infections weaken the body to the point of causing collapse and death. This is because the AIDS victim lacks ability to resist these infections and dies after a long and painful struggle (Shah, 2006).

### **Difference between HIV infection and AIDS**

A person infected with HIV is only a HIV carrier who has no symptom. The person may feel and look healthy but can still spread the infection. Being infected with HIV does not automatically mean that the person has AIDS. A HIV carrier becomes sick when the infection progresses and the signs and symptoms of AIDS appear. AIDS is the last stage of HIV infection. HIV infection generally progresses over a decade before developing AIDS in some cases (Sharad, 2012). This implies that though the last stage of HIV infections is AIDS (Acquired Immuno Deficiency Syndrome) AIDS; having HIV does not mean you have AIDS. Even without treatment, it takes a long time for HIV to progress to AIDS – usually 10 to 12 years if HIV is diagnosed before it becomes AIDS

### **Stages of HIV Infection**

There are five (5) main stages of HIV infections which may vary from person to person. The stages are as follows:

1. Primary HIV infection (Acute Phase): A healthy person infected with HIV (Human Immune Deficiency Virus) presenting with history of a short illness similar to glandular fever 2 – 6 weeks after exposure.
2. Latency period (Asymptomatic stage): This is characterized by the absence of illness or symptoms and could last for several months or years. The AIDS virus continues to multiply and infect more and more lymphocytes with no obvious symptoms.
3. Persistent Generalized Lympho-adenopathy (PGL): This is the stage where an infected person may begin

to show signs of illness after 6 months or after many years. This stage is characterized by enlargement of lymph glands, involving two or more extra-inguinal sites, neck, armpit or groin, which may be associated with fever, weight loss, night sweats and fungal infection among others.

4. AIDS – Related Complex (ARC): This stage is characterized by considerable damage to the immune system. The symptoms at this stage are similar to that of AIDS but less severe. However, patients with ARC do not have opportunistic infections or malignancies as found in full-blown AIDS. Symptoms include weight loss, fatigue, night sweat, headache, itching, abdominal discomfort, diarrhea and splenomegaly.

5. Full-blown AIDS: AIDS is the last and most severe stage of HIV infection. This stage is characterized by symptoms seen in ARC but are more pronounced, complied with the appearance of life-threatening opportunistic infections and humours, neurological disorders and dementia. The immune system has deteriorated considerably to the point of total collapse and death (Achal, 2008).

#### WHO CLINICAL CASE DEFINITION OF AIDS

According to WHO/CDC case definition of AIDS in adults, AIDS can be diagnosed by a doctor when the person has two or more of the major signs together with at least one of the minor signs in the absence of known cases of immunodeficiency. However, majority of the patients infected with HIV are totally without symptoms (Arya, Osoba, & Benneth, 1988). There are basically major and minor signs of AIDS as follows:

**Major signs of AIDS include:** Weight loss greater than 10% of the body weight, persistent fever for more than one month, diarrhea longer than one month and persistent severe fatigue.

**Minor signs of AIDS include:** Constant cough for more than one month, swollen gland lasting for many months, itchy skin rashes (generalized pruritic dermatitis), cold sores all over the body, recurrent herpes zoster and oropharyngeal candidiasis.

#### Symptoms of AIDS include:

Loss of appetite with weight loss of 10 pounds or more in two months or less. Unexplained persistent diarrhea lasting more than one month, unexplained persistent or recurrent fever often with night sweats, unexplained or

severe fatigue, persistent or constant unexplained cough, swollen glands in the neck, armpits or groin that persist for 3 months or more, white spots or unusual blemishes on the tongue, inside the mouth or throat, appearance of persistent lumps or spots on the skin, red, brown, pink or purplish blotches on or under the skin, or inside the mouth, nose or eyelids, and impairment of nervous system of dementia, loss of memory or judgment or depression.

It is also worthy of note that these symptoms may be caused by diseases other than AIDS, hence it is always better to see a doctor than make self diagnosis.

Other clinical manifestations of AIDS include:

1. Kaposi Sarcoma characterized by fatigue, malaise, lymphadenopathy, skin lesions, and tumours on internal organs.
2. Pneumocystis Carinii Pneumonia (PCP), a typical pneumonia characterized by fever, chills, headache, dyspnea, pain on inspiration, fever, weight loss, anxiety etc.

The presence of Kaposi Sarcoma or Cryptococcal meningitis are sufficient by themselves for the diagnosis of AIDS (Arya et al., 1988)

#### Common Diseases Associated with AIDS

Because people with AIDS have weakened immune systems, they are more prone to infections called opportunistic infections. Opportunistic infections are caused by organisms that typically don't cause disease in healthy people but affect people with damaged immune systems. These organisms attack when there is an opportunity to infect. Deterioration of the immune system is caused by the decline in CD4<sup>+</sup> T-cells, which are key infection fighters. As soon as HIV enters the body, it begins to destroy these cells. Symptoms of opportunistic infections common with AIDS include: Coma, coughing and shortness of breath, difficulty or painful swallowing, extreme fatigue, fever mental symptoms such as confusion and forgetfulness, nausea, abdominal cramps and vomiting, seizure and lack of co-ordination, severe persistent diarrhea vision loss and weight loss. Many opportunistic infections associated with AIDS cause serious illness. Some may be prevented. Below is a list of infections and how they affect the body (Wesley, 2001).

#### Opportunistic infection: Brain

- Cryptococcal meningitis: This is a yeast-like fungus infection that usually involves the brain and lungs, although it can affect almost any organ. The fungus that

causes this condition is found in soil throughout the world. It is most common in soil contaminated by bird droppings. This disease most often occurs when a person's CD4<sup>+</sup> T-cell count falls below 100 cells per cubic millimeter of blood.

- HIV-related Encephalopathy: Encephalopathy is a term for diseases that alter brain function or structure, leading to problems with cognitive function, or mental process, and memory in people with HIV and AIDS
- Progressive Multifocal Leukoencephalopathy (PML): is a rare disorder of the nervous system caused by a common human polyomavirus. It leads to the destruction of the myelin sheath that covers nerve cells. which is the fatty covering that acts as an insulator on nerve fibres in the brain. Symptoms include: mental deterioration, vision loss, speech disturbances, inability to coordinate movements, paralysis and ultimately coma, among others. This disease can occur when the CD4<sup>+</sup> T-cell count fall below 200 cells per cubic millimeter of blood.
- Toxoplasmosis: Symptoms include confusion, or delusional behavior, severe headache, fever, seizures and coma. It can affect the eyes, causing eye pain and reduced vision.

#### • **Opportunistic Infection: Eyes**

Cytomegalovirus (CMV); commonly affects the eye's retina, causing blurry vision and in severe cases, blindness. Other common symptoms include: chronic diarrhea and nerve problems. It is most likely to occur when a person's CD4<sup>+</sup> T-cell count falls below 100 cells per cubic millimeter of blood.

#### **Opportunistic infections – Gastro-intestinal**

- Cryptosporidiosis: This is a parasite that can cause chronic diarrhea. Other symptoms include stomach cramps, nausea, fatigue, weight loss, appetite loss, vomiting and dehydration. This infection is difficult to treat and there is no definite effective treatment
- Cytomegalovirus: commonly occurs in the stomach, causing fever, diarrhea and stomach pain.
- Mycobacterium Avium Complex: This is a bacterial infection that can cause persistent fever, night sweat, fatigue, weight loss, anaemia, abdominal pain, dizziness and weakness. The bacteria that cause this infection are found in water, dust, soil and bird droppings.

#### **Opportunistic infections: Genitals**

- Candidiasis: Candidiasis is an infection caused

by the candida fungi, also known as 'Yeast fungi'. It is the most common HIV related fungus infection. It can affect the entire body, but most commonly occurs in the mouth, called thrush or vagina. An overgrowth of yeast in the vagina can cause irritation, itching, burning and thick white discharge.

- Herpes Simplex: This virus causes genital herpes, which are painful blisters in the genital area, or cold sores. Severe conditions are more common in the advanced stage of AIDS.
- Human Papilloma Virus (HPV); It can cause warts on the anus, cervix, esophagus, penis, urethra, vagina and vulva. Studies have shown that certain types of HPV can contribute to the development of cervical and anal cancer. Individuals with HIV and AIDS are at increased risk of developing precancerous and cancerous lesions.

#### **Opportunistic infections: Liver**

Liver Disease~: Liver diseases is one of the leading cause of death among AIDS patients, especially liver disease caused by the hepatitis 'B' and hepatitis 'C' virus. Many drugs used in the treatment of HIV and AIDS can cause liver disease or hepatitis. It is important that patients infected with hepatitis receive treatment and follow-up care.

#### **Opportunistic infections: Lungs**

1. Coccidiomycosis: This infection is caused by inhaling an infective fungus called 'coccidioidesimmitis' The lungs are most commonly affected by the infection. In severe cases, it can involve the kidneys, lymph and spleen. Symptoms include cough, weight loss and fatigue. Meningitis is a common complication when left untreated.

2. Histoplasmosis: This infection involves the lungs, although other organs may be affected. It is usually found in soil contaminated with bird droppings and must be inhaled to cause infection. Signs and symptoms include: high fever, weight loss, respiratory complaints, an enlarged liver, spleen or lymph nodes, depressed production of white cells, red blood cells and platelets from the bone marrow, and life threatening, unstable low blood pressure and Pneumocystis Carinii: which is characterized by fever, cough, difficult breathing, weight loss, night sweat and fatigue. Recurrent pneumonia is most likely to occur when CD4<sup>+</sup> T-cell count falls below 200 cells per cubic millimeter of blood.

3. Tuberculosis (TB): This is a serious and often deadly bacterial infection that primarily infects the lungs, and is transmitted when a person with active TB coughs or



sneezes, releasing microscopic particles into the air. If inhaled, these particles may transmit the condition. Once infected by TB, most people remain healthy and develop only a latent infection. People with latent infection are neither sick nor infectious. However, they do have the potentials to become sick and infectious with active TB.

### **Opportunistic infection: Lymphatic System**

**Non-Hodgkins Lymphoma:** This is a disease in which tumours develop from white blood cells in the lymphatic system.

### **Opportunistic Infections: Mouth and Throat**

**Candidiasis:** This is a most common HIV-related fungus infection. It can affect the entire body, but most commonly occur in the mouth (thrush) or vagina. An overgrowth of yeast causes white patches on gums, tongue, pain, difficulty in swallowing and loss of appetite. Candidiasis in the esophagus, trachea, bronchi or lungs is AIDS defining.

### **Opportunistic Infections: Skin**

1. **Herpes Simplex:** This virus causes cold sores or genital herpes, which are painful blisters in the genital area. Chronic herpes simplex virus (HSV) lesions and severe mucocutaneous HSV disease are common in the advance stages of AIDS.
2. **Kaposi's Sarcoma:** This is the most common AIDS-related cancer. It causes reddish-purple lesions that usually appear on the skin. They also appear on the lymph, nodes, moth, gastro intestinal tract and lungs.
3. **Shingles:** Shingles are caused by a reactivation of the chickenpox virus. It may cause a painful rash or blisters that follow the path of nerves.

### **Prevalence and Burden of HIV/AIDS**

HIV/AIDS has been named a global epidemic with its toll being felt significantly especially in Africa. It has been a major cause of death in the world, it also continues to be a public health concern. It poses a risk to future generations with villages being wiped out due to its impacts. The most affected generation being the most active age group leaving the elderly and aged to look after the young. Widows and orphans have been a major occurrence in many villages and they struggle through thick and thin to survive the impact of HIV (Illefe, 2003).

Statistics have proved that Africa has been most affected with the situation being aggravated by the

poverty levels in the continent. The statistics from the World Health Organization have shown that 34.3 million people in the globe have the AIDS virus and of the 34.3 million, 24.5 million live in the sub-sahara Africa. The effects continued to bite with people being infected and affected by the impacts of the HIV virus. Children bear the largest blunt of the problem when they are left as orphans too take care of themselves. Of the 13.2 million children orphaned globally 12.1 million are in Africans. This means that majority of the people with HIV live in Africa (Shah, 2006).

UNAIDS, (2006); states that practically 19 million people have died from the deadly AIDS virus with 3/8 million of dead being children who are under the age of 15. To add insult to injury 5.4 million HIV global cases were recorded 1999 with 4 million occurring in Africa. This means that people continue to get infected more. Statistics of 1999 indicate that, of the 2.8 million deaths caused by AIDS, 2.4 million were recorded in Africa. Children are also infected through parent children – transmission due to care for their young siblings and more so. They have to care for their ailing parent .They are either forced to drop out of school and engage in child labour to be able to provide for those depending on them. The girls are forced to participate in degrading activities such as prostitution so that they are able to provide for the others and themselves.

The opportunistic infections have continued to make the people spend so much money in treating them without knowing they have the virus for example tuberculosis has been a main infection which infected people; struggle to heal. The stigma from family members and society also continue to be a major problem, since they are left, to struggle on their own to earn a living and provide for the medicines and diets. The family cast them out on grounds that are bewitched, which means they are not fit to be in society, they are condemned to die, which contributes to more problems in society (Shah, 2006).

The anti-retro viral medications are unavailable to many so that they may be able to live a normal life. In addition they are supposed to feed on a very rich diet which is a must for them to be able to live properly. However this is unavailable and unaffordable to most individuals who have to toil day and night to earn a living. Most of the people in Africa live below the poverty level, millions living below a dollar a day (Illefe, 2003). He also states that HIV/AIDS had been a great hindrance to development since it has affected the people's productivity and even the continent has lost so many resourceful people who would have contributed to this development. On the other hand the numerous amount of money channeled towards, could have been channeled to other development activities. The effect of the AIDS virus had made it more problematic to fight poverty, promote development, and progress health. The individuals are not able to work to either support

themselves or their families.

There is also a crisis in the socio-economic and gender disparities, making women at high risk of infections and therefore cannot be able to provide for their families. The children are also affected by the illness of their parents or resulting to social break down. Life expectancy has reduced with the average life expectancy being below 50 years this has affected the social system and people in general. There had been high child mortality rate, and more deaths on the youths aged 20-49 This impact transmits to the future where the society will have imbalance settings. Hence the effect of HIV/AIDS in Africa range from the health sector, households, education sector, on children, enterprises and the work place; on the economy and on life expectancy (Shah 2006).

Victoria, (2012) on Vanguard news pronounces that 70,000 children infected annually, Nigeria has highest mother-to-child infection burden. While the Abuja – Director-General National Agency for the Control of AIDS, NACA, Prof John. Idoko, in 2014, said that over 25 million reported in 1981, noting that more that 33 million people were still living with virus at present. He also declared that 7,000 individuals were infected daily with the HIV virus in the world, more than twice as many as the number of people who start on anti-retro therapy each day. That we still have significant gaps every year, having 281,000 new infections. Of the three million people infected in the country, 1.5 million require to be on life-saving anti-retroviral drugs. Only 400,000 are receiving these”. According to him Nigeria had the largest burden of transmission of HIV mother –to-child in the world, stressing that 30 per cent of these about 70,000 children born every year with HIV hardly lived to see their third birth day without treatment.

### **Epidemiology of HIV/AIDS**

According to a new report by the Joint United Nations programme on HIV/AIDS (UNAIDS, 2011), nearly 50% of people who are eligible for antiretroviral therapy now have access to life saving treatment. It show that 2011 was a game changing year for the AIDS response with unprecedented progress in science, political leadership and results. The report also shows that new HIV infections and AIDS related deaths have fallen to the lowest level since the peak of the epidemic. New HIV infections were reduced by 21% since 1997, and deaths from AIDS related illnesses decreased by 21% since 2005.

Even in a very difficult financial crisis, countries are delivering results in AIDS responds “said Michel Sidibe, Executive Director of UNAIDS”. We have seen a massive scale up in access to HIV treatment which has had a dramatic effect on the lives of people everywhere.

According to UNAIDS and WHO estimates, 47% (6.6 million) of the estimated 14.2 million people eligible for treatment in low and middle –income countries were accessing life saving antiretroviral therapy in 2010, on therapy of 1.35 million since 2009. The 2010 UNAIDS World AIDS Day report also highlights that there are early signs that HIV treatment is having a significant impact on reducing the number of new HIV infections.

### **Factors Contributing to the High Prevalence of the Disease (AIDS)**

The behaviour change has also contributed to an increase in the disease where odd and unwelcoming behaviour such as wife inheritance contributing to the spread of AIDS. Political will has also not been present since they have continued to watch the menace rip-off the citizens without committing themselves to action. The governments have remained under-debt from the international donors in that they cannot have any more to spare for the national disaster. The countries rely on donors, international organizations such as World Health Organization, UNICEF and UNAIDS and well wishers for any help they can get to combat the disease and its effects. Some after getting the money they squander it with other expenses while corruption swindle the rest orphans, widows, and people infected by the disease are left at the mercy of the cruel disease. (Shah, 2006).

### **Prevention for HIV/AIDS**

According to Robert (2001); measures taken to try to minimize the risk of sexually transmitted disease especially AIDS include the avoidance of promiscuity, fidelity to the partner, the use of condom, non penetrative sexual activity and avoidance of contact with body fluids such as blood, genital secretion and saliva. It is worth bearing in mind that since late 1999, the majority of HIV infections in Britain have resulted in intersexual rather than homosexual intercourse. A workshop held in Jos-Nigeria from April 2<sup>nd</sup>-18<sup>th</sup> 1998; Training program in AIDS prevention and surveillance studies, sponsored by the grant from the World AIDS Foundation: Bulkery, emphasized the fact that, early in the epidemic, most prevention activities in Africa were focused in capital cities because of their infrastructures. Although capitals represent only a fraction of the population in most non-urbanized African countries, fortunately the initial wave of the epidemic was often concentrated in these urban activities.

He went further to state that for an HIV prevention and treatment strategy to be comprehensive, the national education effort must include all health care workers not just physicians, the traditional receivers of continuing

education, but also Nurses, public health workers, sanitarians, medical assistants, and midwives and community health workers. It is especially important to include traditional medicines practitioners, who have proven particularly useful because of their iniquitousness and trust by local population. In many communities they out number other health care providers and are likely to be consulted about a disease as difficult to understand and as sensitive as HIV/AIDS. Because health workers often have standing in their communities and one responsible for caring for those who are ill, ensuring that they correctly understand the models and routes of transmission of HIV and approach those infected with empathy is crucial in setting the standard for the communities.

The best strategy for preventing the sexually transmission of HIV is to abstain from sexual activities. Most studies in Africa have suggested that partaking in non-monogamous sexual relationship is a risk factor for HIV transmission. However it is the selection of partners, not the absolute number, that affect the risk for acquiring the virus. Each new sexual contact carries with it a risk that depends on the aggregate of the sexual experience of all previous partners. An increase in the number of sexual partners overall, then will increase the risk of acquiring HIV as one increases the risk of encountering an infected partner understanding the concept of "core groups" is also important for developing strategies for preventing transmission of HIV. Currently the only barrier method that has practical usefulness is protecting against HIV/AIDs in the Africa context is the male condom, when properly used, it has been shown to reduce HIV transmission (Arlahy, 2007).

However, according to Patrick (2007) the use of condom has major disadvantage; unless the woman is empowered to control the sexual relationship, its use depends on her partner, it reduces sensitivity, it may elicit religious disapproval, it cannot be reused, and therefore each couple requires a large number, hence distribution is problematic in many parts of Africa it is too expensive for the poorest persons: it is not 100% effective in preventing HIV transmission

### **Mother to Child Prevention of HIV**

According to Achalu (2008). Preventing of mother to child transmission of HIV/AIDS by the following interventions: Voluntary counselling and confidential testing for HIV, administration of anti-retroviral drugs-Nevirapine, modification of infant feeding, modification of delivery practice and HIV screening before marriage and avoiding breast feeding by infected mother.

### **Preventing HIV by Blood Transmission:**

The first rule of medicine is to do no harm; therefore, the

avoidance of estrogenic spread of HIV is particularly important both as a fundamental duty of the health care providers and as a prerequisite to keeping the public confidence to the practice of medicine. The World AIDS Foundation (1998), estimates blood transmission to be responsible for less than 10% of transmission in sub-sahara Africa, thus to avoid HIV transmission by blood transfusion to ensure that the blood is tested or screened for the presence of HIV before being transfused to a patient, and to avoid unnecessary contact with blood.

### **Preventing HIV Transmission by Injection**

Providers of traditional and modern health care must also be taught the importance of using sterilized equipment and proper techniques for discarding disposable equipment's. Although destructive techniques are best, when this recommendation is difficult to implement disposable syringes and needles can safely and effectively be discarded into pit latrines UNICEF is currently developing the ability to monitor the sterilization of injection equipment. But the safest and more effective strategy for prevention of HIV transmission by injection is to discard the sharps into a sharp box and to be incinerated to avoid being used by another person. Avoid unnecessary injections or scarifications

### **Progress in HIV Prevention**

New HIV infections have been significantly reduced or have stabilized in most parts of the world in sub-sahara Africa the new HIV infections has dropped by more than 26% from the height of the epidemic in 1997, led by a one third drop in south Africa the country with the largest number of new HIV infections in the world. In the caribbean, new HIV infections were reduced by a third from 2001 levels and by more than 25% in Dominican Republic and Juinaica similarly the number of new HIV infections in south and south-East Asia dropped by more than 40% between 1996 and 2010, in India new HIV infections fell by 56% However, the number of new HIV infections continues to rise in Eastern Europe and central Asia, Oceania and middle-East and North Africa, while it has remained stable in other regions of the world (Arlahy, 2007).

According to the above author; declines in new HIV infections are also being spurred by changes in sexual behaviour, particularly in young people, as people reduce their number of sexual partners, increase condom use and are waiting longer before becoming sexually active. HIV prevalence decline among young people in at least 21 of 24 countries with national HIV prevalence countries, Burkina Faso, Congo, Ghana, Nigeria and Togo have been seen HIV prevalence decline by more than 25%

between 2001 and 2010 among young people. The rate of new HIV infections in urban Zimbabwe fell from almost 6% in 1991 to less than 1% in 2010 without changed in behaviour studies estimate that there would have been an additional 35000 new infections annually.

### Treatment for HIV / AIDS

AIDS remain an incurable disease despite all scientific efforts to develop effective cure for it. There are numbers of drugs that have been developed to limit the incidence and severity of opportunistic infections resulting from full-blown AIDS and slow down the progress of infection to full blown AID. The available drugs are therapeutic and not preventive some of the available drugs are very expensive and beyond the reach of most people in the society (Achal, 2008).

Because of the nature of HIV; treatment must be in the form of multi-therapy combination incidentally some of these drugs have dangerous side effects such as sleep problems, cramps, nausea, vomiting, headache, stomach pains, numbness of leg and feet. On a one day sensitization seminar on management of HIV /AIDS, held on the 18<sup>th</sup> of June 2002, sponsored by the Rivers state Government, ministry of Health HIV AIDS control division: lecture by Ejele (Dr) on the Antiretroviral (ARV) treatment modalities were as follows:-

That, monotherapy is infective. Double or Tripple therapy is the current approach: 2NRTI e.g. AZT + 3TC or 2NRTI + PI (e.g AZT +3TC + Nelfinavir) or 2NRTI + NNRTI (Best with potent NRTI e.g Abacavir). Highly active art (HAART) is preferred that is an anti-retro viral regimen that can reasonably be expected to reduce the viral load to < 50c / ml in a treatment naïve patient.

**Problems of ARV therapy:** According to Ejele Long-term compliance difficult, toxicity (short and long-term), does not fully suppress HIV replication, neither eradicate disease and resistance development. On the other hand, the aim of ARV treatment is to:

- Decrease viral load (<1.500 RNA copies/ml, cannot effectively transmit the disease) and therefore delay disease progression and prolong survival.
- Preserve or restore immunological function improve quality of life (28 weeks is the fastest known progression from infection to death)
- Minimizes toxicity, and prevents resistance failure to compliance leads to rebound of infection and resistance to ARVA.

**Side effects of ARV Therapy include;** Anaemia, rash, liver derangement, neuropathy, Hyperlipidaemia, Pancreatitis, Nausea, Vomiting, Headache, bone marrow

suppression, weakness and dyspnoea.

### Looking Towards 2015

UNAIDS (2013); Global Plan progress report suggests that only about half of priority countries are on track to achieve the 2015 target. The report concluded that improving the situation would require a number of steps, including: reducing the number of women acquiring HIV infection, reducing the unmet need for family planning, increasing access to safe and no coercive HIV testing, improving the availability of antiretroviral medicines for pregnant women living with HIV and improving the diagnosis and treatment of HIV among children.

According to Dr. Bilali Camara, Country Director, Joint United Nations Programme on HIV and AIDS (UNAIDS), the former President Goodluck Jonathan's administration had good programmes to control the incidence of HIV/AIDS. That Nigeria has been able to focus attention on the major intervention in the areas where it can achieve success. The former President's Comprehensive Response Plan for HIV/AIDS in Nigeria (PCRP) is a tool designed to respond to the system and service delivery challenges facing the HIV and AIDS response in Nigeria, and also sought to intensify efforts to eliminate HIV and AIDS. He said that UNAIDS believed that the integration of the HIV and AIDS interventions to some programmes had increased the number of people accessing drugs for the treatment of the disease and that between January and April 2015, the number of people accessing HIV and AIDS treatment has increased from 600,000 to 800,000. The integration has been working well in the fight to eliminate the scourge in the country; it has been applied in Nigeria for a year and half now, and it has yielded the desired result.

Sharing similar sentiments, Prof. John Idoko, Director-General, NACA, said the goal of the programme was to accelerate the implementation of key interventions between 2014 and 2015. The plan was designed to bridge existing service gaps and address key financial and health systems, and to coordinate challenges and promote greater responsibility for the HIV response at federal and state levels. The effect of the control efforts is that the HIV and AIDS prevalence has dropped in the country which was attributed to the decrease in the rate of HIV infection in the country to extensive public awareness of the virus and patronage of HIV related services by Nigerians. They therefore, urge the incoming government to build on the existing structures and move towards achieving the desired goals of making Nigeria HIV and AIDS free. (NAN Features, 2015).

Despite the shooting down of the Kuala Lumpur bound plane occurred and unfortunately, consumed the lives of about seven passengers billed to attend the 20<sup>th</sup> World AIDS Conference, among them a leading researcher in to the Human Immunodeficiency Virus (HIV), Jeep and

**Table 1.**The Antiretroviral (ARV) treatment modalities

<b>Nucleoside Reverse Transcriptase Inhibitors (NRTI)</b>	<b>Non-nucleoside TranscriptaseInhibitors (NRTI)</b>	<b>Reverse</b>	<b>Protease inhibitors (PI)</b>
Zidovadine(Retrouvira) AZT	Nevirapine (viramune)		Saquinari (NURVIR)
Didanosine-DDI (Videx)	Efavirenz (sustiva)		Ritnavir(NURVIR)
Zaicitabine-DDC (Hivid)			Indinavir (Cafxiran)
Lamirudine-3TC (Epivir)	Delavirdine		Nelfinavir (viracept)
Staavvdine-D4 T			Amprenuir
Abacavir			Lopinavir

Source: Ministry of Health HIV/ AIDS control division,2002

WHO Media Office Glenn Thomas, it became even more beckoning on the annual conference to put the global impact of the HIV/AIDS menace in proper perspective. It was on this reflective mode that the conference ended with call for uniting HIV, Global Health and Human Rights on the global spectrum. This arouses the call for Nigerians struggle against the global epidemic of HIV/AIDS. That Nigeria and other Sub- Saharan African countries like South Africa and Boutswana-lead countries most ravaged by the menace is no longer news. Nigeria has been a national prevalence rate of up to 5.1 per cent of the population infected with HIV in the early 2000 with the rate dropping to a manageable 4.1 per cent as at 2012. Of this figure, 26.7 of the population know their HIV status with 5.8 and 5.6 prevalence rates for males and females respectively. Another important fact is the efforts of the National Agency for the control of AIDS, (NACA), and the rallying platform in the fight against HIV/AIDS in Nigeria in combating the menace. At the heart of NACA's interventions is "preventing new HIV infections and providing treatment and care services to those already with the virus",which had defined NACA's actions in recent times with appreciable results (Adams, 2014)

On the contrary a recent courtesy visit by Bilali, (September 12, 2015), to Majority leader of the house of Representative, Hon Femi Gbajabiamila concerning the 3.4milliom Nigerians living with AIDS and 60,000 children infected with HIV , his response express dismay at the magnitude of the scourge with regards to the figures reeled out , saying that HIV/AIDS has clearly become a human right issue that requires more commitment from all stakeholders.

## CONCLUSION

The fact that for every problem there must be a solution; Despite the pandemic nature of HIV/ AIDS and in Nigeria, AIDS has continue to weigh down on the many progresses made but with a combined effort the impacts of the virus can be reduced and tamed down.

## RECOMMENDATIONS

AIDS had been fought through a very renowned

campaign known as the ABC of AIDS to Africa people Nigeria in particular, thus this should be stressed through public campaigns to help kick out the virus from the country, "A" is for abstinence, "B" is for being "faithful" and "C" is for using condom. The ABC is another form of telling the people of Nigeria to change their sexual behaviours least they die. Behaviour change can be cultivated through numerous campaigns that will help people leave their sexual life and make it more responsible.

Voluntary counseling and testing (VCT) to make people known their HIV status should be encouraged, as this will make them to be more responsible in their actions in view of the fact that those who are not yet positive will strive to remain negative while those who are positive will reduce re-infections town suspecting individuals with such measures the rate of new infection will be drastically reduced and hence there will be only the old cases to deal with.

To generate robust demand for HIV treatment, countries such as Nigeria should re-conceptualize HIV testing by adopting multiple, proactive strategies to encourage knowledge of HIV status; invest in community literacy initiatives; remove deterrents to HIV treatment access; and emphasize the preventative, as well as therapeutic, benefits of HIV treatment.

Continued strides should be made in improving the efficiency of HIV treatment programmes, health and community systems should be strengthened, programmatic innovation to spur swifter scale-up should be encouraged, and the means to manufacture antiretroviral medicines in Nigeria should be created.

The culture factor that increases infections such as wife inheritance should be campaigned against, where they will have to abandon such practice and ensure if they have to then the necessary precautions are taken.

Government should layout a strategy that can make the people with the virus not to spread it and those without the virus protected. In addition, the government has the mandate of working with NGO and other donor organizations to ensure that anti retro viral drugs are made available to the people for free, so that they are able to live a longer life

Mother to child transmission should also be minimized through providing proper and adequate medical care to

the mother and should give the appropriate advice when the mothers are pregnant. Campaigns should be targeted to pregnant mothers to know their status so as to enable, save the unborn children contacting the HIV virus through measures such as not breast feeding from the mother with HIV instead should be provided with the appropriate milk and dietary food to feed the child.

The education system also needs to be restructured. The syllabus should be all inclusive where children in school can learn what is HIV/AIDS and the effects it has in the society, they should be able to get information from credible sources and not from their peers who may mislead them.

Youths should be taught on how to stay safe and from indiscriminate sexual habits to protect themselves. The use of condoms should be taught and the safe use of it. Reducing the stigma on those whose are positive is of paramount importance since the stigma may make them less productive in their workplaces.

Setting-up an organization that will be involved in the monitoring of the situation i.e the rates of new infections the progress of drug use, the number of orphans and other related statistics will help in having an organized approach to fight against HIV/AIDS in Africa.

Finally, steps are needed to effectively deliver services through implementation of efficient, innovative delivery models; take steps to ensure equitable access; promote accountability through rigorous measurement of outcomes.

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*Full Length Research*

## **Higher Education Opportunities in Enhancing Capabilities – The Case of Reimbursement of Tuition Fee Scheme under Post-Matric Scholarships in Andhra Pradesh, India (2008 – 2012)**

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Accepted 30 November 2015

This paper attempts to understand the higher education scenario in Andhra Pradesh, India, with reference to Reimbursement of Tuition Fee (RTF) scheme that was introduced by the government of Andhra Pradesh to enhance higher educational opportunities. The scheme was introduced to encourage the students to pursue higher education in both government and private colleges, and the government bears the tuition fee by reimbursing the fee paid by the students to the colleges. The policy opened higher educational opportunities to students from economically weaker sections, who otherwise could not have pursued higher education. It is well known that the expenses involved in the higher education discourage students from weaker economic background to pursue higher education. This limits them to contain themselves with secondary school education or upper secondary school education thus making them not competent enough in gaining capabilities in this globalized world. With the introduction of RTF scheme students from weaker sections have been able to pursue higher education. This was believed to equip them with sufficient capabilities to meet the competitive work place environment with the spread of globalization. This paper attempts to briefly look at the background of the TRF policy, its necessity, implementation process, and a detailed account of different aspects covered under the scheme to enhance the higher educational opportunities to the economically weaker sections.

**Keywords:** Fee Reimbursement, Higher Education, Scholarship

**Cite This Article As:** Umapathi A, Venkatramana C (2015). Higher Education Opportunities in Enhancing Capabilities – The Case of Reimbursement of Tuition Fee Scheme under Post-Matric Scholarships in Andhra Pradesh, India (2008 – 2012). *Inter. J. Acad. Res. Educ. Rev.* 3(10): 305-316



## INTRODUCTION

This paper discusses about the higher education scenario in Andhra Pradesh with reference to RTF for socio-economic and educationally backward students. The RTF scheme was launched by the Andhra Pradesh government in 2008 to provide access to higher education to the students from economically weaker sections. Andhra Pradesh is one of the best performing states in India in terms of education. Enrollment in all types of schools in the state during 2011-12 was 13.39 million out of which 7.08 million enrollments were at primary level; 2.60 million were at upper primary level, 3.26 million were at secondary school level and 0.23 million were at intermediate (higher secondary) level. However, in percentage terms, enrollment of children was more at primary level which stood at about 52.91%; 19.46% enrollments were at upper primary level; 24.40% were at high school (secondary level) and 0.17% enrollments were at intermediate level (Government of Andhra Pradesh, 2013). About 7.05 million children were covered under the midday meal scheme during 2012–13 (Ramabrahmam & Mohanty, 2010). There were about 812 government junior colleges (upper secondary) and 12 government vocational junior were established in Andhra Pradesh in 2012. In addition, 205 private aided junior colleges, 12 exclusive new government vocational junior colleges and 753 junior colleges (both private and government) have been offering vocational courses (Government of Andhra Pradesh, 2013). Apart from this, the collegiate education controls 252 government degree colleges with an intake of 0.19 million students and 179 aided colleges with an intake of 0.14 million students in the state with a total enrollment of 0.33 million. About 76 under graduate restructured courses were started in 78 degree colleges during 2009 to 2012. Similarly, 60 structured post graduate courses were started in 59 colleges (Government of Andhra Pradesh, 2013). By 2012, in the field of technical education the intake in engineering courses were 333500 students in 707 institutions; 46795 students in 644 institutions in Master of Computer Applications (MCA); 86905 students in 926 institutions in Master of Business Administration (MBA); 29520 students in 290 institutions in pharmacy and 76000 students in 263 colleges in polytechnic courses. Craftsman trainings have been given in 140 government industrial training institutes.

### Higher Education Scenario in Andhra Pradesh

Andhra Pradesh had established two universities in the two regions of the state; Osmania University (1918) in Telangana and Andhra University (1926) in Coastal Andhra (Government of Andhra Pradesh, 2013). After the formation of Andhra Pradesh in 1956 several universities

have come into existence that include Sri Venkateswara University in 1954, Acharya N. G. Ranga Agricultural University in 1964, Acharya Nagarjuna University in 1976, Kakatiya University in 1976, Sri Krishnadevaraya University in 1981, and NTR University of Health Sciences in 1986. Since their inception all these universities have accommodated affiliated degree programs like Bachelor of Arts (B.A), Bachelor of Commerce (B.Com), and Bachelor of Science (B.Sc.) and post graduate programs like Master of Arts (M.A), Master of Commerce (M.Com) and Master of Science (M.Sc.) in various districts (Government of Andhra Pradesh, 2013). After India embraced economic liberalism in early 1990s Andhra Pradesh was one of the few states which implemented its reforms radically in industrial and administrative arenas. Hence, it is widely regarded as one of the most progressive states of the country (Rao, 2011). It has seen a great development on the industrial front, with the information technology (IT) sector acting as a growth engine. In order to meet the needs of the industry, there has been greater demand for human resources in the professional sector like engineering, management, computer science, pharmacy and other allied sectors in higher education (Nayar, 2006). To enhance the enrollment in higher education in general, and professional education in particular, the government of Andhra Pradesh has increased number of educational institutions in the form of establishing new universities and granting private deemed universities. As a result in the last 20 years Andhra Pradesh witnessed tremendous growth in higher educational institutions. Currently, Andhra Pradesh state has 32 government state universities with seven private deemed universities (Nayar, 2006). In addition, Andhra Pradesh has three central universities and 56 autonomous post-graduation colleges spread across the states that are affiliated with different universities.

In addition to this several hundred teacher training colleges in government and private sector, and different industrial training institutes have been established. In order to coordinate between the University Grants Commission (UGC) and state universities, the Andhra Pradesh State Council of Higher Education (APSCHE) came into existence in 1988 through an act by state government to advise the government in higher education in the state and oversee its development with necessary planning and other related matters. This council is the first of its kind in the country set up as per the recommendations of the national educational policy 1986 (Ramabrahmam, 2011). The council's main functions include; (i) planning and coordination, (ii) academic functions and advisory functions. Planning functions include functions to promote coordination among educational institutions and to formulate guidelines for

approval and sanction of new educational institutions and academic functions include facilitating training for teachers of colleges and universities. Due to the rapid economic reforms in the last two decades or so, Andhra Pradesh completely encouraged private sector in the higher education. For instance, in Andhra Pradesh as of 2012, there were approximately 11000 colleges in which only around 1500 colleges were in the government sector and the rest – around 9500 colleges were under the management of the private sector. So, only a minority of students could get free education through the government managed colleges whereas the other institutes that were managed by the private sector charge the students for providing educational services. To address the issues of fee related financial problems that the students face in the private sector higher educational institutions the government of Andhra Pradesh has come up with a fee reimbursement scheme; Reimbursement of Tuition Fee (RTF). Under this scheme the state government reimburses the tuition fee paid by the student to the private sector college. The government could have opened new colleges and institutions with the budget allocated for the reimbursement of the tuition fee instead of paying it to the private institution, but the overwhelming demand for the higher education degree graduates, especially those with professional degrees, has forced the government to look for shorter routes. Any delay in supplying skilled persons to the market could have forced the private sector investors to look for new avenues other than Andhra Pradesh, and southern states like Tamil Nadu and Karnataka were ready to grab these market opportunities. As a short term solution, government of Andhra Pradesh started the RTF scheme so that the students can study in the private higher educational institutions with government money. The scheme went on to become a big success in increasing the enrollments in higher education which made the state government to pursue the scheme rigorously.

### **Background of the Scheme**

Scholarship schemes represents an important social welfare measure by the central and state governments to enhance the enrollment ratio in higher education and to bring higher education closer to the socially and economically backward students belonging to Scheduled Caste (SC), Scheduled Tribe (ST), Backward Classes (BC), Economically Backward Classes (EBC) (Government of Andhra Pradesh Order No. 232, 2008), Minority Community (Government of Andhra Pradesh Order No. 2008) students and Disabled Students (Government of Andhra Pradesh Order No. 21, 2008) studying in different educational institutions in various courses from post matric to doctoral studies. The government of Andhra Pradesh has been implementing

different scholarship schemes through the departments of social welfare, tribal welfare, backward classes welfare, minority welfare and the department of disabled welfare (Ramabrahman, 2011). The benefits of these schemes are provided to post-matric students based on the parameters specified by the government from time to time (Government of Andhra Pradesh Order No. 50, 2008). Approximately, 2.5 million beneficiaries are covered each year under post-matric scholarship schemes. Nearly USD 1667 million have been spent during the period 2008–12 on this scheme.

The scholarship schemes have been existing for several decades for scheduled caste (SC) (Government of Andhra Pradesh Order No. 90, 2002) students and scheduled tribe (ST) (Government of Andhra Pradesh Order No. 56, 2003) students and on merit-cum-means basis for backward classes (BC) (Government of Andhra Pradesh, 2001) students and minority students in various courses ranging from undergraduate to postgraduate – both in public and private institutions in Andhra Pradesh (Government of Andhra Pradesh Order No. 41, 2001). However, in July, 2008, the government of Andhra Pradesh decided to implement the scheme on saturation basis. As a result, this scheme was extended to backward class students, minority students (Government of Andhra Pradesh Order No. 26, 2008) and disabled students on the saturation basis from 2008 (Government of Andhra Pradesh Order No. 18, 2008). The scheme was extended to the economically backward class (EBC) (Government of Andhra Pradesh Order No. 232, 2008) students from 2009-10 onwards on the saturation basis on par with scheduled caste and scheduled tribe students (Government of Andhra Pradesh Order No. 231, 2008). Initially, the scheme was only meant for students who are studying professional courses like engineering, pharmacy, management, computer science and teacher training courses (Government of Andhra Pradesh Order No. 159, 2008). In fact the scheme promised total reimbursement to students pursuing professional courses if their parent's annual income was less than USD 1667. But due to the enormous pressure from students and parents, and the general elections that were scheduled in 2009 the state government was forced to extend the applicability of the RTF scheme to all other courses on a saturation basis. Economically backward class (EBC) (Government of Andhra Pradesh Order No. 248, 2008) students were also brought under this scheme in 2008-09 with an additional allocation of USD 5 million (Government of Andhra Pradesh Order No. 248, 2008). Initially USD 334 million was allotted for the scheme and another USD 83 million was added in the following year as the EBC candidates were also included. Later, it was raised to USD 583 million as the number of beneficiaries increased.

There were no significant background studies specifically on the status of higher education in Andhra

Pradesh before the introduction of RTF in 2008. Some information was gathered based on available information taken from higher education council regarding colleges and students, course details, budget details and caste/creed wise students' details. Additional information was collected from the social welfare department, backward class welfare department and minority welfare departments (Ifthekhar, 2010). Based on this information government officials have formulated the RTF scheme and started implementing it since 2008. In addition, professional colleges in the private sector in Andhra Pradesh started declining due to lack of students as students were unable to pay the tuition fees due to their weaker economic conditions (Government of Andhra Pradesh Order No. 40, 2001). By 2007 – 08 eighty five percent of post-matric colleges and more than ninety five percent of professional colleges were in the private sector in Andhra Pradesh. Naturally, professional colleges charge a high amount of tuition fees which makes it difficult for the students who hail from weaker economic background to pursue it (Government of Andhra Pradesh Order No. 41, 2001). This apparently makes them to join in traditional courses like Bachelor of Arts, Bachelor of Commerce, Bachelor of Science, Master of Arts, Master of Commerce and Master of Science where the tuition fee is relatively low compared to professional courses. But the booming labor market was looking for man power with professional courses. Students from weak economic background were joining in nonprofessional courses that were not considered competitive by the labor market. This motivated the government of Andhra Pradesh to introduce RTF scheme in 2008 on saturation basis.

### **Post Matric Scholarship & Reimbursement of Tuition Fee**

A post matric scholarship is the scholarship, which is granted to students by the welfare departments of the government for enabling eligible students who have passed secondary schooling or equivalent levels to pursue post-matric studies such as intermediate (upper secondary), polytechnic, professional courses, graduate, post graduate courses, doctoral degrees etc. (Government of Andhra Pradesh Order No. 143, 2008). In the academic year (2012-13), Andhra Pradesh was giving post matric scholarships to 2.6 million students in 1600 unique courses from intermediate (upper secondary) to all professional courses including engineering colleges. In fact, nowhere in the country, no state for that matter provides full tuition fee reimbursement for these many students and these many courses except in Andhra Pradesh. In other words, Andhra Pradesh was the first state to cover maximum students under the post matric scholarship scheme.

Reimbursement of Tuition Fee in full for students

pursuing post matric courses approved by the University/Board are paid to the colleges. However, this reimbursement of tuition fee depends on the type of the course that the students pursue. While most of the courses are eligible for hundred percent of the tuition fee reimbursement, self-financed courses are eligible only for a maximum reimbursement of USD 334 or the actual fee charged by the college if it is less than USD 334. Post matric courses approved by the concerned University/Board is a course with a duration of 1 year or above. Under this component, the whole higher education in Andhra Pradesh has been divided into four groups based on the students' courses as shown in the table 1.

Since 2008, many courses have been included or excluded for several reasons. The fee structure of these courses varies from university to university and from time to time (Government of Andhra Pradesh Annual Report, 2013). First time, intermediate courses were also brought under this scheme. However, this scheme got tremendous popularity as more than seventy percent students have benefited from this scheme during 2008 – 2013.

### **Implementation of RTF Scheme**

Scholarship schemes have been in implementation in Andhra Pradesh in higher education with the financial help of the central government for decades on the saturation basis for scheduled caste students and scheduled tribes students and on merit cum means basis for backward class students and minority students based on their social category with certain annual income limit on the beneficiary's families. Till 2007-08, the allocations of the budgets for these welfare departments were comparatively low. Therefore, the numbers of beneficiaries were also less. In 2007-08 academic year, the total beneficiaries from scheduled castes, schedule tribes, backward classes, minority welfare and disabled welfare were only 1.4 million and less enrollment were seen in professional courses from low income families due to the burden of tuition fee in private colleges as they were controlling ninety five percent of the professional colleges. In order to bring the technical education closer to the socially and economically backward communities and to enhance the enrollment ratio in professional courses, government of Andhra Pradesh extended total reimbursement of tuition fees for backward class students on saturation basis on par with scheduled caste and scheduled tribe students who were studying both in private and government professional colleges and whose family annual income is less than USD 1667 in 2008-09 academic year. Subsequently, minority welfare and disabled welfare students were also included on par with the scheduled caste and scheduled tribe students.

**Table 1:** Group wise course details covered under RTF scheme

Group Wise Course Details Covered Under RTF		
S. No	Course Category	Courses Covered
1	Intermediate	Intermediate, ITI/ITCs, Vocational courses (Intermediate level)
2	Degree	Degree courses(not covered in group I & II), NIFT (National Institute of Fashion Technology) courses
3	Professional	Degree and PG Courses in Medicine, Engineering, Technology, Management, Agriculture, Veterinary and Allied Sciences, Business Finance, Business administration and Computer Applications/ Science, Commercial pilot License course)
4	PG & PhD	Other professional and technical graduate and PG including (M.Phil., PhD and post-doctoral research) level courses not covered in Group-I. C.A./I.C.W.A./C.S./ etc., courses, all post graduate, graduate level diploma courses, all certificate level courses.

Source: Adopted from 'Outcome Budget Reports 2012 – 13'. Dept. of Social Welfare, Government of Andhra Pradesh.

Initially, the scheme was confined only for professional courses like engineering, management, computer science, pharmacy etc. and later it was extended to all other courses such as degree, post graduate, doctoral and intermediate level courses, that too on saturation basis.

Subsequently, economically backward students were brought under this scheme in 2008-09 with an allocation of additional USD 5 million. The following year, the upper limit was taken off for the economically backward class students also. Initially the budget allocation for the scheme was around USD 334 million per year and according to the budget in 2012-13 the budget was increased to USD 667 million. This scheme was a big boon for professional colleges in the private sector, especially engineering colleges in rural areas where there were no takers for the engineering seats due to higher fee structure. A huge number of engineering, management, computer science and teacher training colleges have mushroomed in the private sector and they started filling up their seats with other backward classes' students and claim reimbursement of tuition fee from the government. Currently, nearly half a million students in these professional colleges are being covered under the RTF scheme.

### Specificities of RTF

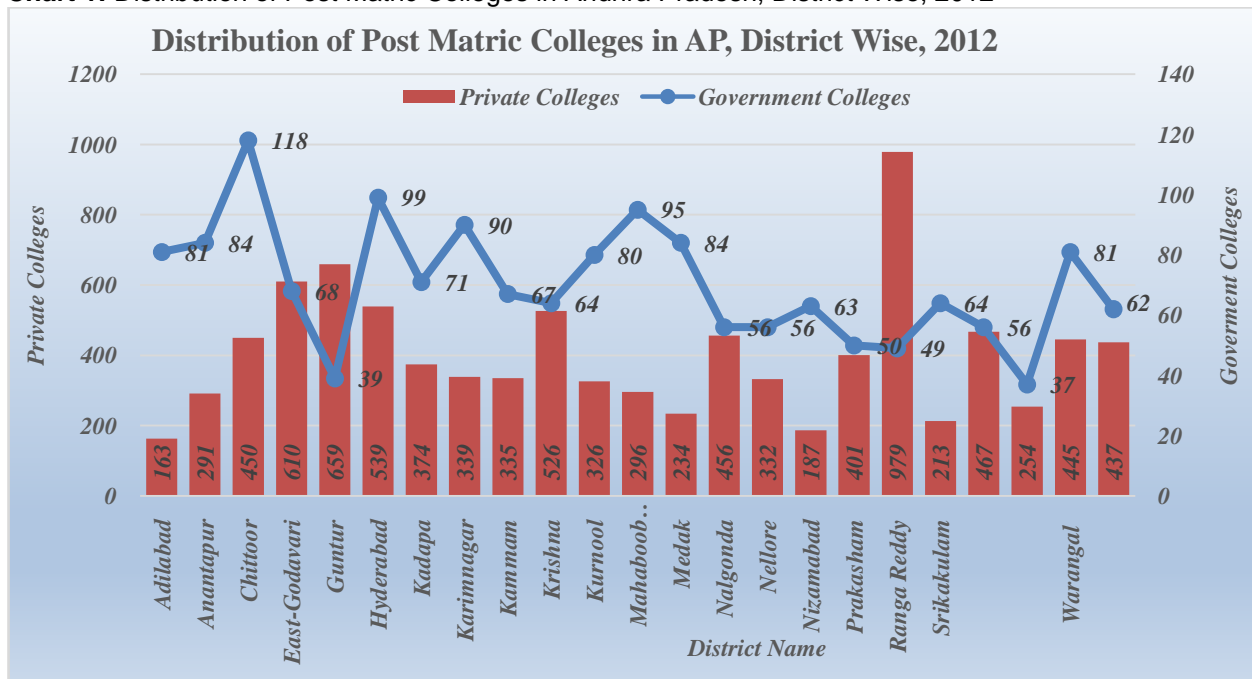
As discussed in chart 1, the RTF scheme has been in implementation in around 11000 higher education institutions in Andhra Pradesh since 2008. Out of the 11000 higher education institutions, around 9500 are in the private sector where the tuition fee will be usually high and absence of RTF scheme apparently means that the number of students joining these private institutions will be less in number. The following chart shows the detailed distribution of both government and private higher educational institutions in Pradesh by district wise in 2012.

The total government colleges in entire Andhra Pradesh were only 1614 – including both professional and non-professional colleges. The percentage of government colleges share was nearly fifteen percent and the private colleges contributed a hefty eighty five percent of the share. Out of eleven thousand colleges in Andhra Pradesh, around 1050 colleges are located in Ranga Reddy surrounding greater Hyderabad areas. Ranga Reddy district alone contributed to around ten percent of colleges among 23 districts; whereas in Adilabad only 244 colleges were there, which was just above two percent of the colleges in Andhra Pradesh. None of the districts crossed three digit numbers in government colleges except Chittoor district. Chart 2

As shown in chart 2, private sector colleges occupy the larger share of the RTF scheme. 4296 private intermediate colleges and 1337 government intermediate colleges were covered under RTF scheme. Intermediate colleges take a large share of the RTF followed by professional colleges where 2533 of them were from private sector and only 79 colleges were under government control. This clearly shows that without RTF scheme the number of student enrollment in the private professional colleges would have been low, and the number of private professional colleges would not have mushroomed. In the category of PG and PhD colleges also the private sector led the list with 960 colleges and the contribution of government colleges in this category was only 40. In the category of degree colleges around 1466 of them were under the control of the private sector and only 224 degree colleges were under government management.

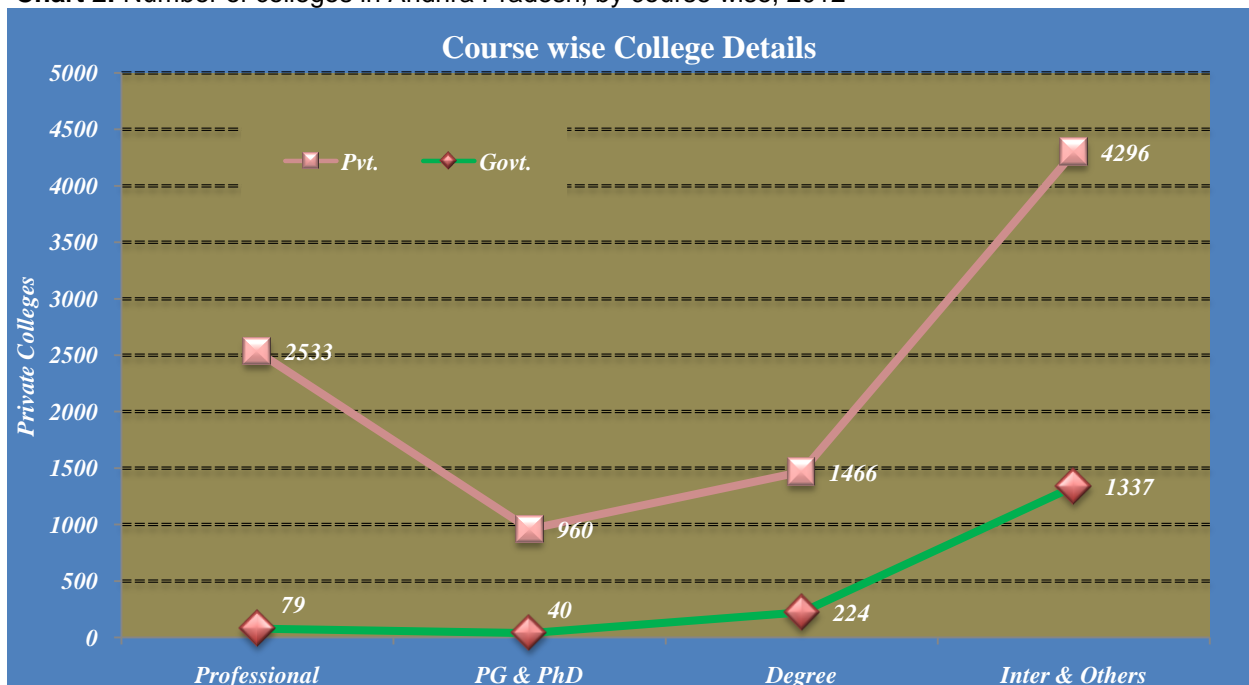
As discussed in chart 3, professional colleges started booming from 2008 onwards with the introduction of the RTF scheme as students started filling all the colleges that were managed by the private sector. Reimbursement of tuition fee by the government motivated the private sector college owners

**Chart 1:** Distribution of Post Matric Colleges in Andhra Pradesh, District Wise, 2012



Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Report 2011-12'.

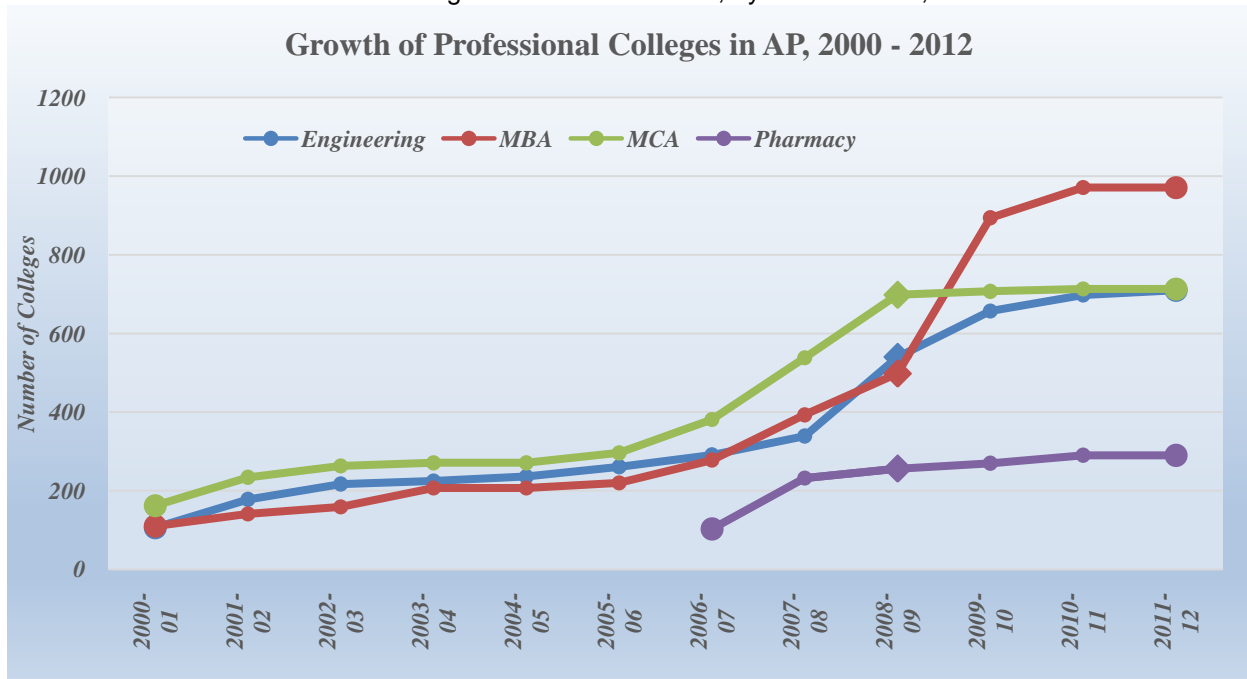
**Chart 2:** Number of colleges in Andhra Pradesh, by course wise, 2012



Source: Adopted from Andhra Pradesh State Council of Higher Education Annual Report 2011-12.

Note: Pvt = Private, Govt = Government, PG & PhD = Post graduation & Doctor of Philosophy

**Chart 3: Growth of Professional Colleges in Andhra Pradesh, by Course Wise, 2000 – 2012**



Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Reports 2001 – 02, 2002 – 03, 2003 – 04, 2004 – 05, 2005 – 06, 2006 – 07, 2007 – 08, 2008 – 09, 2009 – 10, 2010 – 11, 2011 – 12, & 2012 2013'.

Note: MBA = Master of Business Administration, MCA = Master of Computer Application

to open more colleges as they started anticipating that their colleges will be filled with students who wish to join professional courses but could not join because of the costs involved. Now that the government has come forward to take care of the tuition fee it was apparent that the college owners predicted the trend correctly. The rate of growth of the professional colleges since 2008 is a resemblance to the fact that RTF is behind the growth numbers of the professional colleges. The numbers of engineering colleges were 106 in 2000 – 01 and it grew to 339 by 2008 and doubled from there onwards to 710 by 2011 – 12, and the same growth can be seen in case of MBA and MCA colleges also. The number of MBA and MCA colleges were 110 and 162 respectively in 2000 – 01 and by 2008 their numbers grew to 393 and 538 respectively, and eventually grew to 971 and 713 respectively by 2011 – 12. New pharmacy colleges started mushrooming since 2006 – 07, around the time when background plans to launch RTF were on. There were no pharmacy colleges till 2006, suddenly they started booming since 2006 – 07 and have nearly tripled by 2011 – 12. There were 290 pharmacy colleges by 2012 in Andhra Pradesh.

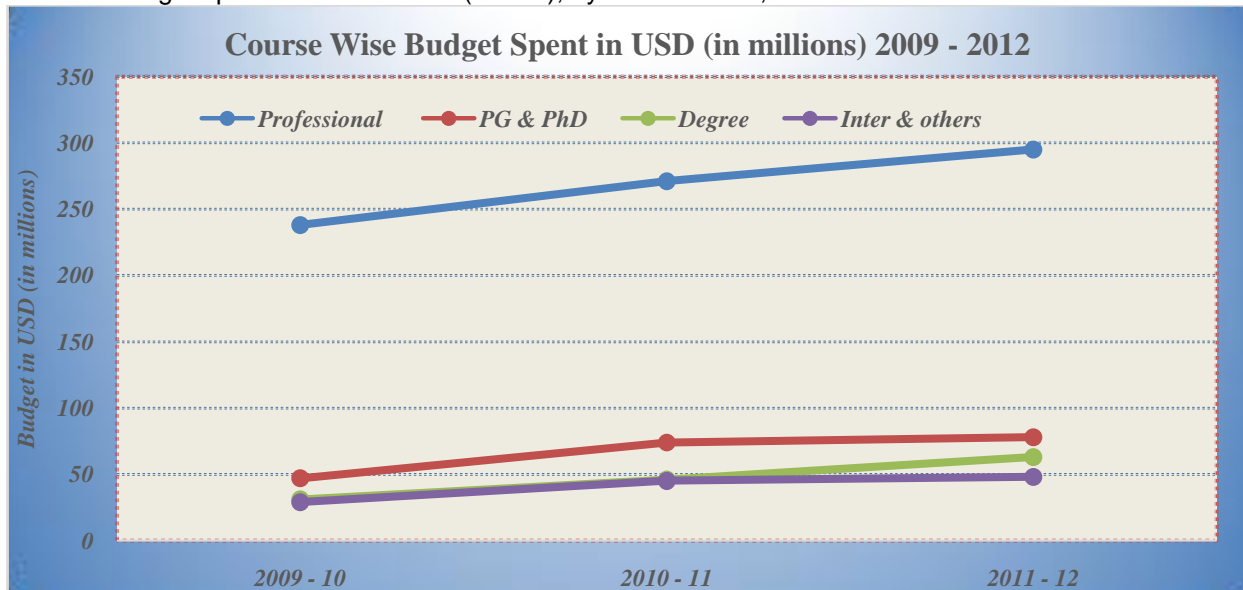
As discussed in chart 4, professional courses took the large piece of the cake by taking away around USD 238 million in the year 2009. The budget consumption by the remaining courses – PG & PhD, Degree and Intermediate – put together were only USD 107 million which was not

even half of the budget that was spent on professional courses. By the year 2012 the professional courses were consuming as close as USD 300 million whereas the budget consumed by the remaining courses – PG & PhD, Degree and Intermediate – put together was around USD 189 million.

As discussed in chart 5, more than 20 million students benefited from RTF scheme in 2009 out of which more than 12 million were male and nearly 8 million were female students. By 2012 some progress in the number of female beneficiaries can be observed as their number increased from nearly 8 million in 2009 to nearly 9 million in 2012.

Chart 6 represents social category wise beneficiaries during 2008 – 2013. All the years, backward classes students got utmost benefit in all sections. The RTF beneficiaries from backward classes were around 1033000 in 2008 – 09 followed by 1284000 in 2009 – 10, 1391000 in 2010 – 11, 1443000 in 2011 – 12 and 1516000 in 2012 – 13. The second highest beneficiaries were from scheduled caste category, where around 600000 students got benefitted every year. Economically backward classes students occupied third position in terms of beneficiaries with around 203000 in 2008 – 09 and by 2013 the number of beneficiaries in this category stood at around 337000 approximately. The next highest number of beneficiaries of RTF were from scheduled tribes and their numbers stood at around 200000

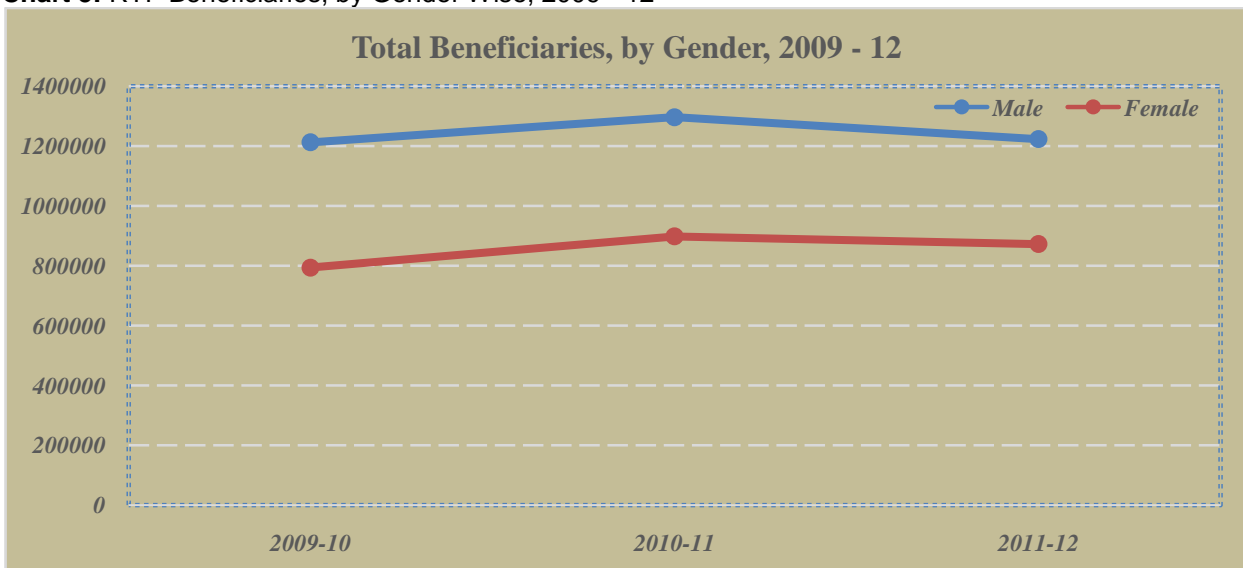
**Chart 4: Budget spent on RTF in USD (million), by Course Wise, 2009 - 2012**



Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Report, 2009 – 10, 2010 – 11, & 2011-12'.

Note: PG & PhD = Post-graduation & Doctor of Philosophy

**Chart 5: RTF Beneficiaries, by Gender Wise, 2009 - 12**

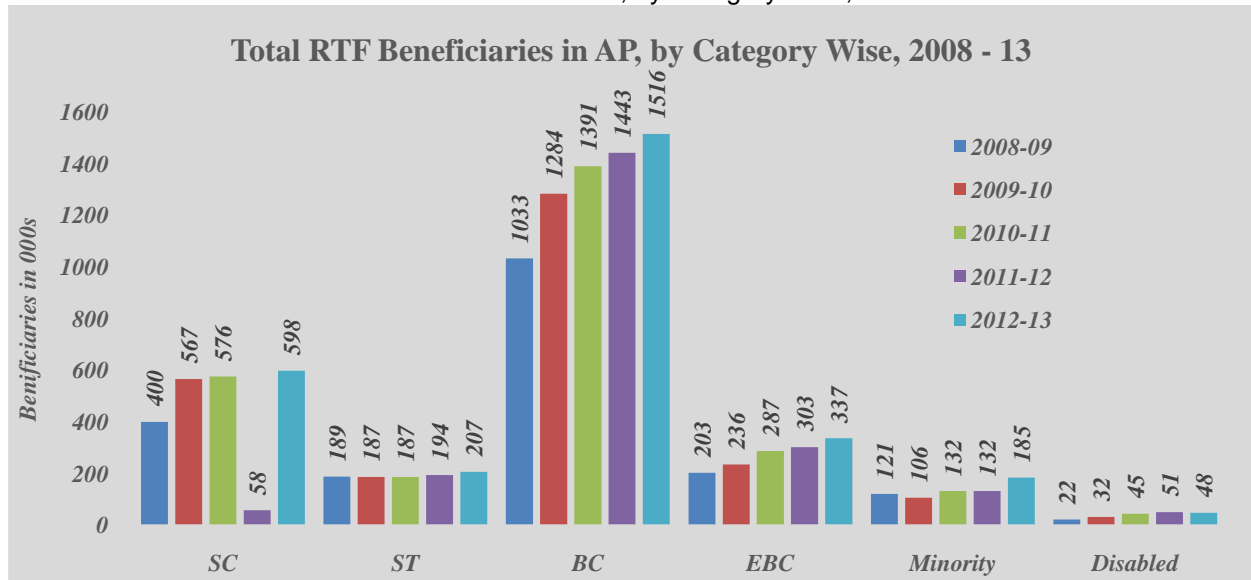


Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Report 2009 – 10, 2010 – 11, & 2011-12'.

approximately during 2008 – 2013. Number of minority beneficiaries from RTF stood at around 121000 in 2008 – 09 and it increased to 185000 by 2013. Disabled students also benefited significantly from RTF scheme. In 2008 – 09 the number of disabled students who got benefited from RTF stood at 22000 approximately and the number

of beneficiaries increased to 48000 per year by 2013. As seen in chart 7, the most number of beneficiaries of RTF are from intermediate courses. The total number of intermediate beneficiaries under RTF stood at around 945000 in 2008 – 09 followed by beneficiaries of degree course with around 462000 and professional courses with

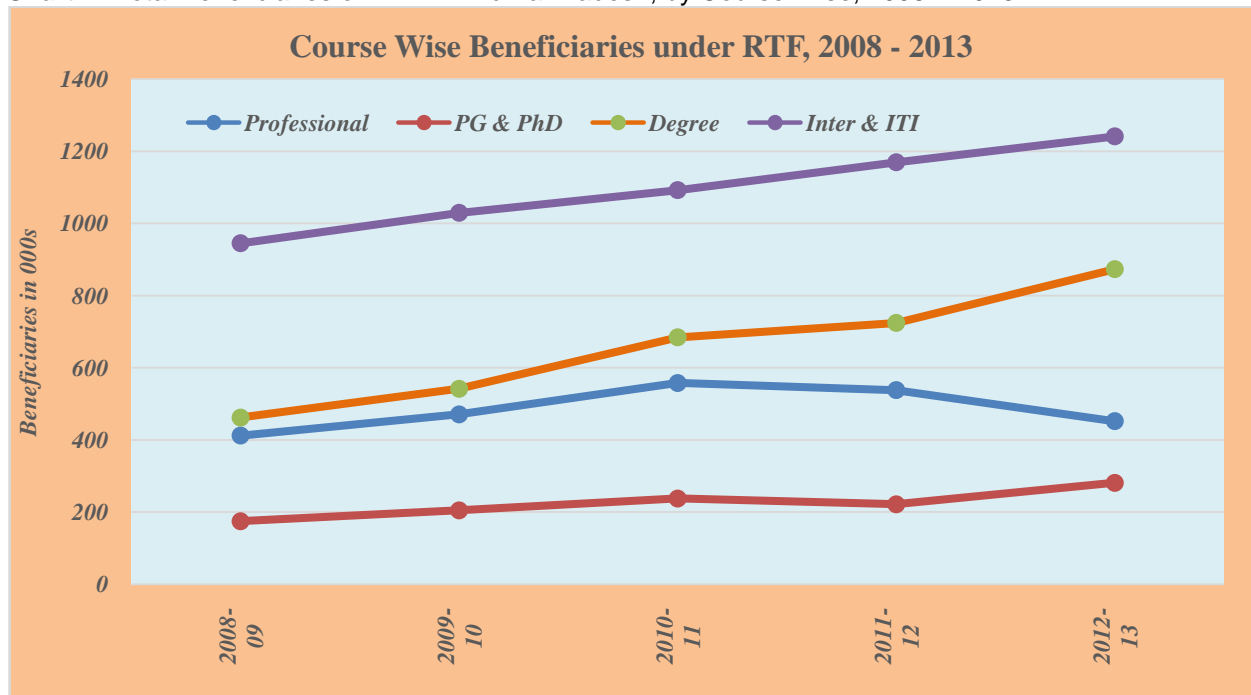
**Chart 6:** Total RTF Beneficiaries in Andhra Pradesh, by Category Wise, 2008 - 2013



Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Report 2008 – 09, 2009 – 10, 2010 – 11, 2011 – 12, & 2012 – 13'.

Note: BC = Backward Classes, EBC = Economically Backward Classes, SC = Scheduled Castes, ST = Scheduled Tribes

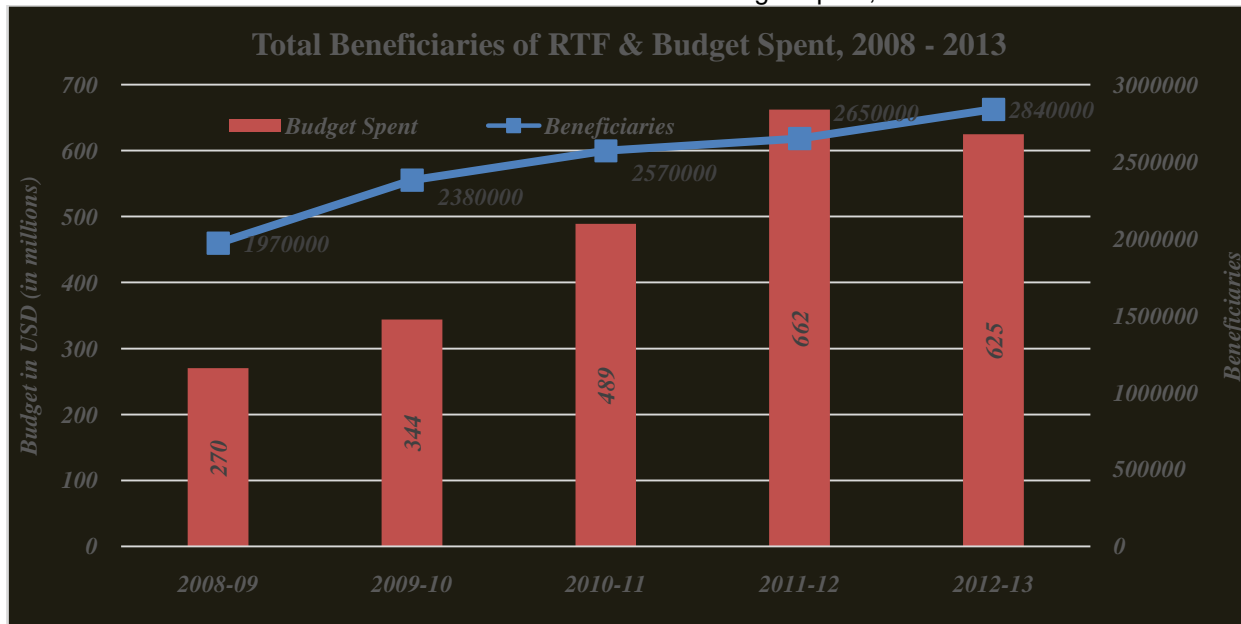
**Chart 7:** Total Beneficiaries of RTF in Andhra Pradesh, by Course Wise, 2008 – 2013



Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Report 2008 – 09, 2009 – 2010, 2011 – 2012, & 2012 – 13'.

Note: PG & PhD = Post-graduation & Doctor of Philosophy, Degree = Under-graduation, Inter & ITI = Intermediate (Higher Secondary Education) & Industrial Training Institute



**Chart 8: Total Beneficiaries of RTF in Andhra Pradesh and Budget Spent, 2008 - 2013**

Source: Adopted from 'Andhra Pradesh State Council of Higher Education Annual Report 2008 – 09, 2009 – 2010, 2011 – 2012, & 2012 – 13'.

around 412000. The beneficiaries from PG and PhD courses occupied the last position with 175000 beneficiaries approximately in 2008 – 09. By the year 2013 the same trend continued with an increased numbers. The highest number of beneficiaries was from intermediate courses with around 1241000 followed by degree course with 873000 beneficiaries, professional courses with 452000 beneficiaries and PG and PhD courses with 281000 beneficiaries approximately per year.

As seen in chart 8, the total number of beneficiaries under RTF scheme was around 1970000 in 2008 – 09, and the numbers went on increasing year by year – the beneficiaries of RTF was around 2380000 in 2009 – 10, around 2570000 in 2010 – 2011, around 2650000 in 2011 – 12 and they increased to 2840000 in the academic year 2012 – 13. The budget for RTF also increased in sync with the growing demand for higher education. The initial budget for RTF was around USD 270 million in 2008 – 09 and at the end of academic year 2012 – 13 the government of Andhra Pradesh was spending around USD 625 million on RTF.

## SUMMARY

The first five academic years from 2008 – 13 saw 12.41 million student beneficiaries under RTF scheme. An overall budget of around USD 2390 million had been spent during 2008 – 13. The maximum number of beneficiaries is from intermediate and related courses

with around 5.47 million students claiming the benefits of the RTF scheme followed by under graduation and related courses with a total beneficiaries of 3.28 million. Around 2.43 million students have benefited under RTF scheme by joining professional courses. Post-graduation and doctoral students occupy the last position with around 1.12 million benefitting under RTF scheme. When calculated category wise the backward class castes are the one who have benefited more from the RTF scheme with their numbers standing at around 6.66 million in a total beneficiaries of around 12.41 million, which is almost equal to their population proportion in the state. Scheduled castes are the second most beneficiaries of the scheme with around 2.74 million benefitting from the RTF policy followed by economically backward classes with 1.36 million beneficiaries, scheduled tribes with 0.96 million beneficiaries, and minorities with 0.67 million beneficiaries. Around 180000 persons with different disabilities also benefited during 2008 – 13 under RTF scheme.

The scheme has faced significant political, legal, financial and technical challenges during the period 2008 – 13. Around 11000 colleges in Andhra Pradesh have received reimbursed tuition fee in the name of students. The office of auditor general of Andhra Pradesh has audited the scheme and its implementation process and has identified certain kinds of difficulties with implementation of the scheme both at ground level as well as at the top level. In the audit report they found that

enormous delays in disbursing the scholarship amount are often resulting in the colleges/institutes coercing the students to pay the fees from their pockets. In addition, the report also found that the ePASS system— developed and maintained by center for good governance (CGG) for capturing and processing all the transactions relating to sanction and disbursement of scholarships – has brought in a lot of positive changes in implementation of the schemes. The report also emphasized that there were numerous errors in ePASS system relating to e-mail IDs, bank account numbers, mobile numbers, application IDs, etc. (Office of Auditor General of Andhra Pradesh, 2012). Further, the report says that the laxity in verifications resulted in sanction of scholarships at higher rates in some cases, increasing the chances of fraud/embezzlement of government money as colleges were claiming scholarship for ineligible students and were also denying scholarships to eligible students due to huge pendency in verification.

The report concluded that colleges/universities were the channels through which scholarships were disbursed, and with no direct interface between the beneficiary students and the government and no reporting back from the nodal banks about the details of disbursement, there is an absence of mechanism for the government to assess the impact of its initiatives in this regard. Further, with each university/institute charging fees at their will without any basis, and the government releasing the scholarship amount based on such fees rather than stepping in and streamlining the fee reimbursement system, the burden on the state government finances multiplied. Apart from all the above problems, there were a huge number of non-beneficiaries listed due to the non-availability of any particular mechanism to measure annual income. If implemented in a foolproof manner with insistence on quality, the RTF scheme could change the higher education scenario in Andhra Pradesh by giving opportunities to those who cannot afford higher education, and this eventually may lead to enhancing the capabilities of the weaker sections in this globalizing world.

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*Full Length Research*

# DIFFERENT APPROACHES IN ARCHITECTURAL EDUCATION About Workshops / Cooperation and Joint Events

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Accepted 6 December 2015

It is obvious that universities play a significant role in the production and transference of knowledge in the contemporary world often referred to as the age of knowledge. Recently, the mission of the multifunctional university has been changed and transformed becoming more interactive in character, allowing for greater creativity, participation and influence in relation to other aspects of the contemporary world. The changes in the outlook of education, has allowed universities to develop new techniques and methods and new educational programs, including interdisciplinary workshops, allowing for interrelations between academic individuals through more innovative studies and research projects. Thus, the educational programs not only make third generation students much more effective and willing to participate in these activities but they also generate a network between different social platforms. Throughout the paper, the fundamental approaches, policies and projects implemented by the Faculty of Architecture in Erciyes University will be introduced. In particular, this paper presents some of the experiences within the Strasbourg/Germir Workshops and Ağırnas Studies, both of which have been organized by multiple partners and stakeholders. The different acquisitions delivered by each partner are mentioned, specifically focusing on the experiences of the students. The necessity of architectural education which should engage with the social agenda of the present time is conclusively highlighted as is the revision in the educational practice which thus far has been restricted to the theoretical and therefore divorced from the dynamics of reality.

**Keywords:** Architectural Education, Different Methods in Education, Training of Architects, Workshops, Cooperation and Joint events

**Cite This Article As:** Büyükmihci G (2015). DIFFERENT APPROACHES IN ARCHITECTURAL EDUCATION About Workshops / Cooperation and Joint Events. Inter. J. Acad. Res. Educ. Rev. 3(10): 317-325

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## INTRODUCTION

As a professional field of study concerning the design of living space, architecture has been the foundation of social culture and history, so that it has always been the focus of interest for people around the world. The built environment as created by architects influences the mood, psychology and social interaction and life styles of its users. From this point of view, architecture can be defined as an interdisciplinary area of science that is built on an intellectual background going beyond simple notions of design and construction.

Architectural education represents a special field of knowledge taking into account multiple factors including the scientific, artistic, social and physical aspects. It also differs from other professions in terms of the teaching and training methods that it employs.

In today's age of information, universities play an undeniably crucial role in generating, transmitting and sharing knowledge. The mission of universities, characterized by multiple functions is currently shifting away from a purely academic one of generating and teaching knowledge. Indeed a, more active, visionary, prolific and participative mission has evolved thus maintaining stronger links to a reality in the form of cross-pollination of mutually enriching elements, interacting with different components of the contemporary world. This evolution characterizes the polyphonic model of universities in the 21<sup>st</sup> century (Büyükmihçi, 2015).

In recent years, universities in Turkey have adopted different approaches to education. Social networks have been established among academics; innovation and R&D works have gained importance. There is a stronger tendency to look for different platforms for education.

At a time when unpredictable changes and transformations are taking place, the universities, as places of the creative teaching of rapidly changing/transforming knowledge are inevitably required to reassess their own position; their academic curriculums and embrace the need for a restructuring of the curriculum. However, the laws of the higher education system allow for an increase in the number of foundations supporting the establishment of a new type of university; and the increasing number of universities which are embracing the new law, has thereby lead to an increasingly competitive environment. This new environment has prompted universities to call themselves into question and to take new positions.

As universities are shifting away from their traditional format and searching for new ways of educating, each faculty is then called to adopt the new teaching methods in their respective fields. Additionally, since different educational platforms are being devised, and more active educational instruments are being sought, it is imperative to organize the cooperation programs, the joint activities and the workshops which are being held with other

universities, civil society organizations, research centers and local administrations as part of broader national and international projects.

However, the situation is quite different for Turkey. It is often stated that the only mission of universities is educational activity. Indeed, many universities are criticized from time to time for being interested in non-curricular issues, creating new ideas and acting in a participatory manner. Yet as far as the development of countries is concerned, it is crucially important that the universities which are taking part in local social networks undertake a leading role in society, carrying out the mission of education for all segments of society, transforming and reshaping cities whilst setting a vision in action founded on scientific criteria that are independent of any profit seeking motive.

Given that universities have more dynamic relations with society nowadays, the idea that academic identity, social responsibility and scientific autonomy of universities are secondary to their function as teaching units is no longer a convincing discourse for large sectors of society. The universities, which are acknowledged as societal actors, are encouraged to share their knowledge with public and private institutions or agencies. To this end, significant amounts of funding are earmarked for cooperative programs relating to production and industry, the University/Industry, University/Civil Society and University/Local Administration projects for example.

Whatever the underlying reason, these approaches and insights that might be qualified as novel approaches in education can give the universities a bigger margin to devise and maneuver within a more productive, dynamic, participative and ultimately stronger university model.

## MULTITUDE OF UNIVERSITIES IN TURKEY

Education, as a crucial aspect of national policy needs to be targeted, planned and organized well. The decisions taken in this field, which are intended for shaping the future of society, are crucial for new generations. The phenomenon of education, which promotes an individuality paradox which is dependent on whether the university accepts or resists change, requires a holistic approach to all the dynamics and a clear delimitation of the boundaries of intervention.

Turkey has recently been going through some radical changes in education accompanied by some specific qualitative and quantitative transformations (Sargin, 2014).

The increased number of universities in Turkey was brought about by the law allowing for the establishment of foundation universities which has not only brought about the concept of "multitude" (Hardt and Negri, 2001) to the

agenda of the country but it has also raised some concerns about the quality of education. Whether the increase in the number of universities is good or bad for the country is an issue that has been much debated. As far as the quality of university is concerned, there have been questions about whether the sheer number of universities would cause a quality problem on the one hand. On the other it was agreed that this multitude of choices could create a more competitive environment; and this, in turn, would be a positive thing aiding in stripping universities of their heavy and slow structure. The faculties of architecture, as individual objects within this multitude, have to make a self-assessment and they have to rethink their roles in terms of their social contribution.

In this environment of multitude, which is characterized by radical transformations and new evolutions, it is now fundamental for all institutions to decide where, how and with which tools they position themselves. Some universities have aimed to create their own new missions and environments through the maintenance of minimal but effective regulations. Some have tried to maintain their conventional structure despite all the contemporary pressures that have been exerted upon them, while others have tried to free themselves of their old missions, identifying themselves more closely with the new ones. The more recently established universities have often been fighting for an existence in this competitive environment, whilst searching for the models, which would be optimally directive for them.

To sum up, the presence of numerous and recently established foundation universities have caused a change in the traditional environment of education in Turkey. This has resulted in a complicated environment leading to questions about the quality of education. While some faculties have come up with unsubstantiated slogans which are used continuously to promote their prestigious educational schedules in order to survive and appeal to successful students and their platforms. Some other faculties are managing to capitalize on the environment of multitude and to create liberalizing togetherness through generating high quality cooperation and partnerships while maintaining their specific individual structure. The latter also creates different learning platforms for their students.

The process, which is characterized by significant competition among the universities across Turkey, will be interpreted in reference to the position and practices of the Faculty of Architecture in Erciyes University in the following parts of the paper.

#### **APPROACHES, POLICIES AND PROJECTS IMPLEMENTED BY THE FACULTY OF ARCHITECTURE IN ERCIYES UNIVERSITY**

The Faculty of Architecture at Erciyes University set a

target for itself. The faculty aimed to be a more active, more participative and more social entity within the university.

Architecture is a visual art. The visual effects of space, in the examination of architecture clearly matter. The Faculty building can be conceived as a shop window representing the image of the institution. If the faculty aims to achieve serious consideration in its relationships with other institutions and persons, established through its international cooperation programs, the quality of the space offered to its guests should have the desired visual and technical qualities. From our point of view, it is necessary to improve the existing structure of the faculty and complete its necessary infrastructural work in order to achieve this.

Primarily, we have strengthened the IT infrastructure of our building; we have set up a videoconferencing system for national and international calls in our convention hall and we have created two studios. In addition, we have ensured the security of our structure by fitting turnstiles and a video surveillance system. All students are now issued with special entrance cards, which are also designed to increase each student's sense of belonging to the faculty. These cards are used to access and exit from the building. Exhibition areas and workshops with audio systems for playing music have also been established. The acquisition of new furniture, paintings and lighting fixtures has been facilitated by donations or bought by ourselves. These re-adjustments to the layout and contents of our building has made it better suited to architectural training.

In parallel with these structural renovations, we have revised our educational curriculum in line with the Bologna process, MIAK (Architecture Accreditation Board) and international accreditation so that it responds to the modern issues and contemporary requirements of contemporary architecture.

For architectural education, visual observation is as important as the theoretical basis. Bearing this in mind, we have aimed to consolidate our students' visual observation by organizing technical visits both at home and abroad. During such technical visits, our university has developed cooperative links with other prominent universities; and the students have thus had the opportunity to get in touch with these universities and to garner their support. We have already visited the important sites and architecturally valuable buildings of many cities under the guidance of stakeholder universities located in these cities. The narratives provided by the professors of those universities have allowed students to gain valuable architectural insight into the buildings of these cities whilst acquiring the targeted outcomes of the particular course.

The rapidly increasing number of universities has created a severe shortage of academics across Turkey. When we have faced this significant problem, we have



tried to solve it through cooperation. We have concluded cooperation agreements with reputable and experienced universities such as Yıldız Technical University, Mimar Sinan Fine Arts University (M.S.G.S.), Dokuz Eylül University and METU to name a few. In addition joint project groups were facilitated during some semesters.

These cooperative ventures have created a positive synergy between partner faculties, managerial staff and academic staff as well as between students, and have resulted in the development of numerous parallel activities such as publications, exhibitions and workshops.

In addition to these cooperative programs, we have invited architects, who have proved themselves either in Turkey or abroad, to visit both our studio projects and our reviews. These architects work together with us on a full-time or part-time basis. Emre AROLAT, together with his group leaders Natali TOMBAK and Nil AYNALI, have supervised the design studios of our Faculty for two consecutive semesters. Murat AKSU and Umut İYİĞÜN from MUM Architecture have contributed to our faculty every week for 6 semesters. Didier LAROCHE from ENSAS University has been employed at our Faculty for 2 semesters bringing his contribution of an international dimension. A certain number of competent academics from M.S.G.S. University, Dokuz Eylül University and Yıldız Technical University have participated in our studios together with our students every week. These experiences with practicing architects and their intellectual concerns, have made a significant contribution to the personal and professional development of our students.

In the central Anatolian city of Kayseri, it is difficult to find events like exhibitions, conferences, seminars, panels and music recitals that would also serve to support architectural training. We aim to provide the opportunities for our students to attend and experience such scientific and artistic events and in so doing to develop themselves and to broaden their visions. To do so, we have organized many events together with the Chamber of Architects and The Metropolitan Municipality of Kayseri. The classical music recital that we have organized jointly with The Austrian Embassy was an unforgettable experience not only for our students but also for the citizens of Kayseri.

Over the last 3 years, many scientific and artistic activities, including 14 workshops, 52 lectures, 14 exhibitions and 3 panels were organized by our faculty. These events have all aimed to create various platforms to broaden our students' visions. This present article intends to share some of our experiences through presenting the outcomes of two important workshops the Strasbourg/Germir workshop and the Ağırnas studies, that were organized in collaboration with multiple partners and stakeholders.

## KAYSERİ / GERMİR WORKSHOP

The universities that joined this workshop started with twinning the Kayseri Metropolitan Municipality and the Strasbourg Municipality. This collaboration has allowed for the strengthening of academic relations and also the organization of many joint events that took place thereafter. The "International Germir Workshop", which constituted the first stage of academic events, was organized in Germir on 13-23 October 2012 in cooperation with Erciyes University Faculty of Architecture and ENSAS Higher School of Architecture. It was sponsored by Kayseri Metropolitan Municipality and Strasbourg Municipality. It involved 15 French and 15 Turkish students attending this workshop facilitated by 5 French and 5 Turkish academics. Figure 1

In choosing the venue for housing this joint event with the ENSAS School of Architecture in Strasbourg, the city of Germir that has managed to preserve its historic fabric along with its memories was preferred by all parties. Germir boasts traditional dwellings, deserted churches and an urban fabric embedded into the natural landscape. Although it is historically rich with its outstanding architectural texture, it could not integrate with modern life and has almost completely lost its young population who has emigrated (Büyükmihçi, 2012a).

During the workshop, not only the physical environment data, but also the remaining traces of the past within the architectural fabric were examined. The problems that are faced by the citizens of Germir were discussed within the context of conservation theories and contemporary conservation methods. This generated proposals for solutions.

At the workshop, which was devised as a social platform, the participants focused on the potentialities of place, its opportunities and drawbacks as perceived in the objective reality; Based on these perceptions, participants developed ideas and projects that related to the future urban functioning of a particular place by referring back to its multi-cultural past.

The French and Turkish academics and architects came up with specific comments, interesting observations and proposals during this workshop.(Figure 2).This workshop was organized in order to bring together academics and architects in Germir which in itself provides an environment that has conserved the traces of its multi-cultural past. This collaboration has contributed to the planning of Germir through protecting its vibrant character and conserving its original historical characteristics in line with scientific principles. It has led to a critical forum among scientists (Figure 3)who initially came together to discuss these issues and allowed for the development of a different learning platform for students of architecture (Büyükmihçi, 2012b).

The ideas and outcomes generated in Germir were evaluated on a broad-based platform attended by the



**Figure 1.** Photographs from the Germir Workshop.(Photographs by Author.)



**Figure 2.** Created Posters from the Germir Workshop (2012).



**Figure 3.** Photographs from the Germir Workshop.(Photographs © Deanship Archive.)

Kayseri Metropolitan mayor and the Erciyes University Rector, Representatives of the Embassy of France, municipal council members of Kayseri and Strasbourg, the muhtar (selected village head), the inhabitants of Germir, the lecturers, the students and members of the press. Before the meeting took place where the results were assessed, an exhibition was held displaying the products that had been created in the course of the workshop. This exhibition was inaugurated at the exhibition Hall of Kayseri Metropolitan Municipality with an international protocol and admitted the public for one

week (Figure 1).

### **STRASBOURG/NEUDORF WORKSHOP**

The 2<sup>nd</sup> stage of the workshop which took place in France between 14 – 24 March 2013, was organized as part of the international scientific co-operation, through the sponsorship of Kayseri Metropolitan Municipality and Strasbourg Municipality, in cooperation with Erciyes University Faculty of Architecture and ENSAS Higher School of Architecture. The workshop was held in the





**Figure 4.** Photographs from the Strasbourg Workshop.(Photographs © Deanship Archive.)

Strasbourg – Neudorf region with the participation of 15 French and 15 Turkish students and was facilitated by 5 French and 5 Turkish academics. (Figure 4).

The venue hosting the workshop was located between the old city of Strasbourg, and Neudorf, a relatively newer settlement. Despite being positioned on the main canal which divides the city into two, the city has not developed in an integrated manner with the road and the public transportation axis. This problem has prompted the local administration to look for solutions.

Within the context of the workshop which was organized as one of the projects launched by the local administration promoting the idea of connecting the two sides of the city, urban and spatial analyses as well as a SWOT study were conducted. The SWOT analysis found the strong points of the area as follows: the mostly intact historic fabric, the specific settlement fabric associated with the area, the existence of high quality structures, the proximity to human scale, the well designed balance between free and occupied spaces, the easy accessibility, the presence of the canal, as well as the trekking and cycling routes, and the presence of areas conducive to new settlements. The weak points of the area are as follows: the highway which prevents a link between the old city and the new settlements which causes a social, spatial and visual disconnection between the two banks, the occasional new settlements contrasting with the historical fabric, the lack of pedestrian routes despite the presence of cycling routes, the problematic intersection of the motor vehicle transportation, the public transportation and the pedestrian travel, the lack of open public spaces, the lack

of urban furniture, the lack of parking lots and the under-utilization of green spaces.

The theme of disconnection was identified as the main problem of this urban area. This problem has also been frequently raised during other discussions necessary for strategic decision making. In this regard, students were divided into groups and were required to prepare scenarios under the headings: visual disconnection, spatial disconnection and social disconnection. They also carried out Urban Design projects.(Figure 5).The proposals for integrating the two disconnected banks of the city on the basis of different parameters were developed during the workshop. The workshop was concluded by the exhibition that displayed the outputs in conjunction with an assessment meeting that was attended by senior local administration officials, municipal councilors, consular representatives, academics and students. (Figure 6)

#### **PURPOSE OF THE WORKSHOPS, PROCESS AND ACQUISITIONS**

In the course of the workshops, the students were expected to design dynamic, multi-layered and functional structure groups according to their strategic plan. This plan had to include the key points that not only supported and linked the urban and the individual functions of the spaces, thus meeting present needs, but it also needed to vary according to the type of use and urban flow required. In so doing future scenarios for the city were produced. This exercise has been done for different

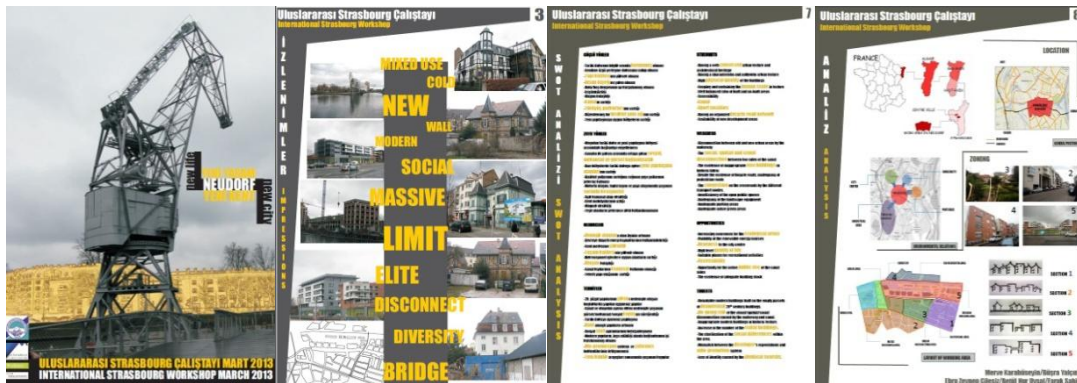


Figure 5. Posters Created from the Strasbourg Workshop (2013).



Figure 6. Photographs from the Strasbourg Workshop.(Photographs © Deanship Archive.)

places in different countries including for areas of a city that failed to integrate into the life of its region and environment. The students were required to solve multiple problems in a short time; they had to work fast, in harmony with one another and in coordination through a real exchange of knowledge and cooperation. They were also required to complete their project despite the limited time.

The training and design works were enriched by the presentations and comments of the French and Turkish lecturers, and offered very valuable experiences for both the local population and the students who were able to express themselves, whilst generating and assessing ideas in an international atmosphere.

The students, who have reflected upon the phenomenon of architecture in real situations have developed awareness about the present importance of the reuse and the versatility of objects and spaces belonging to their daily life, and they have observed different points of view by meeting with the different user groups that constitute a society.

The students, who preferred to focus on the remaining traces of an experience of the past as impacted on the architectural fabric and the physical environment, have

observed that traditional structures can provide functions quite different from their original intended use without losing their original characteristics. They have also learnt how to interpret such historic fabrics from a new point of view. Figure 6

These workshops, which have offered specific and creative opportunities, have turned out to be enriching and useful experience for both the French and the Turkish students. They have provided important opportunities for Turkish students to experience the Alsace region and the city of Strasbourg, which has kept the traces of an experience of the past within its architectural fabric. They were also able to observe the interaction of the traditional fabric with the everyday life. The French students, on the other hand, were impressed by the spontaneity of the existing social life and the warmth of human relations despite the time-worn physical environment of Germir. (Figure 3-4)

## AĞIRNAS STUDIES

The Faculty of Architecture at Erciyes University, has aimed to shed light on the Ağırnas urban area, the birth



**Figure 7.** Photographs from the “Studio Ağırnas” Exhibition.(Photographs by Author.)



**Figure 8.**The Exhibition Poster of Studio Ağırnas(2014).

place of the great master Sinan the Architect. They aimed to familiarize the younger generation with the area whilst drawing the attention of the scientists of the university thus enabling an opportunity and the environment for its development and reconstruction. In this connection, the Faculty has cooperated with Ağırnas Municipality. As part of this cooperation, all appropriate studio works and other practical courses for the academic year 2012-2013 were directed towards this urban area. As a parallel event, during the course of the cooperation between Erciyes University Faculty of Architecture and Yıldız Technical University, Ağırnas was proposed as a working platform. Yıldız Technical University focused on Ağırnas during some of its graduate and post-graduate classes. As a result, 120 architecture students from Yıldız Technical University, 226 from the Erciyes University Faculty of Architecture as well as 57 academics in total worked on Ağırnas. (Figure 8).

In the course of this work, 346 young people have reflected on Sinan the Architect; they have visited his birthplace; they have got to know the people of Ağırnas

and they have interrogated their own thoughts, aspirations, desires and expectations. They have regretted that the area was not sufficiently protected and that the problems and opportunities of the place have not been adequately identified. They have come up with new ideas on how to restructure Ağırnas in a style worthy of Sinan and in line with scientific criteria applicable to new buildings and how they are integrated into the existing physical environment. They have also developed a number of projects. The outputs of this work has been shared with a broad-based platform through the large exhibition that was organized as part of the “9<sup>th</sup> April events for the commemoration of Sinan the Architect”. (Figure 7) The exhibition was held under the auspices of the President of the Republic and in cooperation with institutions playing an effective role in the reconstruction of the city and the protection of the urban environment.



The works carried out and projects generated were explained to the decision-makers and relevant institutions at an event attended by multiple stakeholders, with the participation of the Governor of Kayseri, Metropolitan Mayor, Erciyes University Rector, Provincial Culture Director, Conservation Board Director, KUDEP officials, the mayor of Ağırnas, the , representatives from the Kayseri section of Chamber of Architects, academics and students. These outputs were also shared with the public for one week.

We hope that this exhibition which reflected how young people viewed, interpreted and envisioned Ağırnas will also shed light on the relevant issues that can be taken up by the local administrations, thus contributing to the development of a vision for the Ağırnas community that can be enacted through the necessary projects. (Büyükmihiçi, 2014).

## CONCLUSION

Mario Salvadori's thoughts on architectural training which state: *"Indeed, architecture cannot be taught. That is why there aren't any good architecture schools. But architecture can be learnt. The existence of good architects proves this"* (Raskin, 1974, Kortan, 2013) defines an interesting paradox. Education, the most prominent object of discussion of this paradox, is indeed about creating an environment conducive to nurturing professional and mental development.

Recent education models are based on *"learning how to learn"* and *"flexibility"* concepts. Teachers are expected to create the necessary conditions for a high quality education. Universities, which have an important role in producing knowledge, are adopting a multi-dimensional, competitive and flexible format based on teaching students how to learn, providing the skills of problem solving and creative thinking. There is a more proactive stance evolving that attaches importance to innovation and R&D, and the generation of projects designed envisioning a better society.

As for the architectural education that involves the solving of complicated problems as a matter of fact, the aims of the latest educational approaches are; to create the intellectual basis, to design the balance between theory and practice, to create relationships between people within the academic circle, to develop multiple and quick thinking ability and to enrich the architectural educational practice based upon real data gleaned from life. At present as academic curricula are shifting away

from the simple transmission of theoretical knowledge, it is noticeable that there is a significant diversification in the agenda of architecture schools.

It is acknowledged by all actors of the academic circle that the existing circumstances do not provide an environment that facilitates the production of scientific knowledge. That is why we face a young generation equipped with only theoretical knowledge, devoid of professional practice and unconscious of social realities. This, in turn, has a negative effect on our built environment. Indeed, the physical environment in which we live reflects this incapacity. One must acknowledge that the education has no chance of being successful unless it responds to the habits and expectations of the young generation whom it educates. In this connection, the education delivered to students of the new generation who are more inclined to discourses and paradigms of the new world should be equipped with the necessary tools. This is only possible through the creation of different learning environments that serve to keep their interest alive. When designing new education platforms for young people, who prefer a faster and more active education model, it should be kept in mind that crisis situations always have the potentials for bringing new developments. Shortcomings with regard to the transmission of knowledge, experiences and acquisition of knowledge to all levels of education need to be addressed. A university model should be designed to put in place universities that attach importance to innovation and R&D works, that are equipped with the necessary technology, are competent in research, possess international recognition as well as increased social responsibility and internalized technological developments.

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