LOOK EAST

A Journal of CDS - RBCEC
Volume 7 | Issue 1 | 2021
ISSN 2231-0029

LOOK EAST

A Journal of CDS-RBCEC

ISSN 2231-0029

VOLUME 7, ISSUE 1, 2021

Centre for Development Studies

Rishi Bankim Chandra Evening College

East Kantalpara, Naihati

North 24 Parganas, West Bengal

About the Journal

LOOK EAST is an annual peer-reviewed journal of the Centre for Development Studies, Rishi Bankim Chandra Evening College. The journal publishes papers on economics, social science, and management subjects with special focus on Southeast Asian Countries.

Contact Details

Email	*journal.lookeast@gmail.com*
Postal Address	LOOK EAST Centre for Development Studies Rishi Bankim Chandra Evening College East Kanthalpara, Naihati, North 24 Parganas West Bengal - 743165

ISSN: 2231-0029

Date of Publication: 31.12.2021

Notes for Contributors

Papers submitted to the LOOK EAST should be original contributions and should not be under consideration for publication elsewhere at the same time. All submissions and correspondence should be addressed to the Editor, LOOK EAST, Centre for Development Studies, Rishi Bankim Chandra Evening College, Naihati, West Bengal – 743165, India. Submissions of electronic versions of papers are welcome at the following email address: *journal.lookeast@gmail.com.* We prefer innovative papers with balanced mix of theoretical and empirical research.

Submissions which do not conform to the journal's style sheet may be returned to respective authors for necessary revisions before publication.

Contributors will receive a single copy of the particular issue of LOOK EAST in which the contribution appears.

Disclaimer

The views expressed here are of the authors and not of the publishers. While care has been taken to ensure the authenticity of the materials published, the publisher accepts no responsibility for their accuracy.

Style Sheet

i. The manuscript should include a separate page(s) for title of the paper, the institutional affiliation(s) of the author(s) and acknowledgements and related matter, if any

ii. The manuscript should be accompanied by an abstract of not more than 100 words.

iii. Footnotes should be numbered consecutively and should appear at the bottom of the corresponding pages.

iv. References should come at the end of the manuscript.

v. The mathematical formulae and equations should be clearly written and numbered consecutively in the manuscript.

vi. Graphs, charts, etc. should be neatly drawn and presented; preferably art work or laser print of the same should be sent.

vii. Tables and graphs should be numbered consecutively and not according to the section in which they appear.

viii. Referencing

(a) In the text: Name of the author and year of publication are to be cited in brackets.

(b) In the References List Names of the authors should be arranged according to the alphabetical order of surnames. The writing of references should follow the usual norms.

Contents

LOOK EAST
Vol. 7, No. 1, 2021, pp. 1-11

Does Group Based Microfinance Programme reduce Domestic Violence? An Exploratory Study

Avijit Brahmachary*

Abstract

In order to achieve a satisfactory level of human development, it is imperative for all individuals to enjoy a sense of security. Lack of security raises uncertainty and vulnerability, and makes people lose their sense of moderation and induces them to behave opportunistically and irresponsibly. Domestic violence is a strong obstacle to achieve basic security by the women. It indicates a special kind of insecurity within the household. It is a pattern of physical, sexual and emotional abusive behaviors by one individual to control or express power over other individuals in the context of close relationship. However, the extents of violence among the educated women are mostly psychological in nature and different from the low income-low educated group of people (Meenai, 2003). For the sake of simplicity and without loss of generality, however, in this paper, I have considered the concept of domestic violence in respect of low-income group people (especially women people) and for that purpose we have surveyed self-help group (SHG) members who have participated in microfinance programme to evaluate their position in this regard after joining in SHGs. Our crude result shows that the 'Self Confidence' and 'Behavioral' comparison of the SHG members on some selected issues between pre- and post-SHG situation clearly indicates a positive shift of the member's attitude towards the path of self confidence and empowerment.

Keywords: Microfinance Programme, Self Help Groups, Basic Security, Domestic Violence, Self Confidence and Empowerment

* *Dr. Avijit Brahmachary, Assistant Professor, Department of Economics, Barrackpore Rastraguru Surendranath College, Kolkata – 120, E-mail: avijiteco@rediffmail.com*

1. Introduction

To achieve a satisfactory level of human development, it is essential for all individuals to enjoy a sense of security, a sense of belonging and a sense of direction. This sense of security must be present for every individual, not only within themselves, but also within the family, workplace and community. Lack of security raises uncertainty and vulnerability, and makes people lose their sense of moderation and induces them to behave opportunistically and irresponsibly. Insecurity also stamps out innovativeness and inhibits people from productive risk-taking options. As such, the sense of insecurity finds an echo all over the world among all types of people, regardless of their status or gender. It is universally recognized that 'basic security', including economic, social and representational meaning, should be a human rights issue and a necessary condition for the advancement of real freedom. Ironically, throughout history, periods of rapid economic growth have been associated with the loss of basic security through the failure of mass entitlements (ILO, 2004; Kabeer, 1999, NABRD, 2018).

Domestic violence indicates a special kind of insecurity in the family. It is a pattern of physical, sexual and emotional degrading behavior by one person to control or express power over another person in the context of an intimate relationship. Domestic violence is often seen among low-income people in India where poverty and unemployment are a serious concern. The situation also aggravates due to excessive use of drug and alcohol by the batterers. Batterers may come from different professions, educational backgrounds, class and religion backgrounds, and always there intention is to make some conflict within the household to impose their power on the victims. Here, most of the victims surrender to the batterers due to their fear, social custom, low level of income and education, etc (NABARD, 2018; Gil & Others, 2020). Surprisingly, very few educated victims (mainly women) can boldly protest against such violence. However, levels of violence among educated women are largely psychological in nature and differ from those in low-income, low-educated groups (Meenai, 2003). For the sake of simplicity and without compromising generality, however, in this paper, I have considered the concept of domestic violence in the case of low-income people (especially women). Since most self-help group members (SHGs) belong to the less privileged section of society, surviving on the edge of the knife of stability, the possibility of improved security for them should be given serious importance. Many national and international studies show that SHG members have benefited by joining in the group on both economic (income, savings, resource mobilization, etc.) and social (decision making, mobility, protest against violence, etc.) indicators (NABARD, 2010). And therefore, it is assumed that microfinance programme has a positive impact on the reduction of domestic violence among low income group people and thereby a better achievement of basic security as compared to non-members (Gil and Others, 2020). In this paper, our position starts that every individual should have 'Basic Security' which must encompass (ILO, 2004): (a) freedom from illness, (b) freedom from fear, (c) control over one's own development, and (d) sustainable self-esteem.

However, as the sense of security is much wider for a quantitative study/ assessment we must have to narrow down the broader theme of security according to relevant issues which we would like to analyse. Here, we have concentrated on the issue of 'Self Confidence' and 'Behavioral Change' of the member respondents considering few relevant sub-components (such as self worth, Communication Skills, Protest against Gambling, etc.) to analyse the extent of basic security what they are enjoying presently. Since microfinance programme has a strong empowerment effect on women SHG members therefore, here we have considered self help group members as the targeted respondents to evaluate the performance of microfinance programme in reduction of domestic violence and enhancing basic security among member households.

2. Sample Design and Methodology

Initially we have selected two districts purposively for our study – Nadia and Murshidabad from the state of West Bengal. We randomly selected a total of six villages from these two districts - 3 from each districts. From these six villages we randomly selected 255 SHG member households who belong to those SHGs which are in operation for at least 3 years or more and collected required data from these households through questionnaire based survey method. Besides, 74 non-member households were also selected randomly from these sample villages as a control group and requisite information was gathered from them. Thus, we carried out our study considering 329 sample households - 255 member households and 74 non-member households. It may be noted that all the member and non-member households belong to the same socio-economic class and geographic location. In the analysis section we have arranged and tabulated the primary data according to the requirements of the paper. Percentage analysis has done to represent the field data and comparative analysis has performed to compare the before and after scenario of group formation. Some statistical tools such as mean, standard deviation, etc. have also done to represent the descriptive statistics of the data set.

3. Social Impacts and Empowerment of Members

A major part of the rural poor in India is deprived of the basic amenities and opportunities and are oppressed by social customs and practices even now. As a palliative, different government and non-government organizations have implemented several programmes to uplift them both economically and socially. The SHG-bank linkage programme is one such attempt to empower the poor households.

The group-based programme provides adequate scope for the rural households, especially women, to develop their self confidence and social behaviour. In this section, an assessment of the impact of SHG-bank linkage programme on social life of the members by comparing pre- and post-SHG situations has been attempted. Two indicators of social impact and empowerment are discussed here, namely, self-confidence and behavioral changes.

A) Self Confidence

Following the study of Puhazhendhi and Satyasai (2000), in this section we have discussed two aspects of self-confidence: ‘self worth’ and ‘communication skill’.

Self Worth

It is assumed that the microfinance programme has a positive and significant impact on the self worth of the members. To verify such an assumption, in this study we asked different questions to the member households so that we can assess the impact indirectly. Member’s feeling of self worth was assessed indirectly by collecting different information on his/ her confidence in general, as well as in facing financial problems of the family, treatment received from family members and his/ her attitude in helping the neighbours.

Table 1 : Proportion of Sample Members Reported Positive Response to Questions about Self Confidence and Self Worth

Particulars	Before (%)	After (%)
Members exudes confidence	20	58
Treatment from family member –		
(a) As usual	71	54
(b) Better than usual	29	46
Can confidently face different small financial crisis in the family	33	67
Always ready to help neighbours as much as possible	72	94

Source: Survey Data

About 20 percent of the members surveyed exuded confidence during pre-group situation (Table 1). In comparison to this about 58 percent of the members showed self confidence in the post-group situation. Similarly, there is an improvement in the quality of the treatment meted out to the SHG members by their family members at their household level. While in the pre-group situation, only 29 percent of the sample members experienced a better treatment in terms of respect commanded, the proportion rose to 46 percent who experienced similar treatment during the post group situation. Further, the involvement of members in the group significantly contributed to improving the confidence of the members in managing financial crises in the family during the post-group period; while only a smaller proportion of the members (33%) were capable of managing such crises during the pre-group situation, after joining the group this proportion exactly doubled to 67 percent. Since most of the group members live together in the same village and belong to almost the same socio-economic class, they usually tend to help one another. Such a trend, however, has improved after the joining the group. About 94 percent of the members confirmed their involvement in helping their neighbours in the post-group situation, which is relatively better than that of pre-group situation (72%).

Hence, the response of the member households on the issue of self worth (measured indirectly through different qualitative questions related with self confidence) clearly indicates that there is a significant positive change among the members from pre- to post-SHG situation. Though these findings are quite impressive, there still remains the scope to improve. Therefore, a large task lies ahead for the microfinance providers to continue to encourage and educate those member households which have failed to benefit from the social impacts of the programme.

Communication Skill

The level of communication with other members of one's own society is one of the major parameters of indicating the communicative skills of members and is a measure of his/ her confidence level. The level of communication among the members in different forums/ meetings is shown in Table 2.

While most of the members did not or hesitated to speak out (82%) during the pre-group situation, the figure, however, came down to only 45 percent in the post-SHG period. A significant proportion (55%) of the member households have reported that they can communicate easily with others in the post-SHG period, whereas the corresponding figure in the pre-SHG period was just about 18 percent. Thus, there is a significant shift in the level of communication which might be due to regular interaction with the other members in the periodic meetings as well as the training provided by NGOs/ self help promoting institutes.

Table 2: Level of Communication of Members in Meetings/ Forums

Attitude	Before (%)	After (%)
Freely Communicates	7	28
Sometimes Speaks	11	27
Speaks only if asked but hesitates	30	25
Hesitates to speak and therefore remains silent	52	20

Source: Survey Data

To understand the level of communication of the members more deeply we also considered the interaction by the members with different officials such as bank officers, project officer, etc. (Table 3).

Table 3 : Percentage of Members having Interactions with Officials in the Last 3 Months

No. of officers Met	Before(%)	After(%)
None	71	35
Up to 1	25	42

1 to 3	4	21
More than 3	0	2

It is seen about 71 percent of the members did not have any opportunity to meet officials either from government or bank or any other organization (such as NGOs) during the pre-SHG period. However, the picture has been reversed in the post-SHG period, when, as a result of group activities, about 65 percent of the members could meet with at least one official, and of them 23 percent of the members could meet more than one official during the last 3 months from the survey date. Undoubtedly, such a trend indicates the level of confidence building by the programme which enables the members to interact at par with officials of different institutions.

B) Behavioral Change

To assess the changes in the behaviour of the sample members due to implementation of SHG programme, a set of situations like verbal abuse, physical violence, etc. were identified and the reaction of the members to such situations were obtained. Further, responses to whether the members had the desire and opportunity to exercise the option to lodge complaints in such situations to either their relatives or friends or to the police, or whether they had any way of warning the perpetrators to avoid these situations were also recorded. The responses of members to different situations are described in Tables 4 and 5.

Table 4 : Proportion of Members Who Protest against the following Social Evils

Events	Before (%)	After (%)
Wife beating	17	41
Gambling, Drinking etc.	11	46

Source: Survey Data

One of the inherent objectives of the SHGs is to improve members' assertiveness. With a view to explain this aspect, events of husbands physically abusing their wives, gambling and drinking were chosen (Table 4).

Table 5 : Responses of Members to Different Exploitative Situations

Nature of Abuse	Before (%)				After (%)			
	Submit	Resist	Complain to Group	Complain to Police	Submit	Resist	Complain to Group	Complain to Police
Verbal abuse	51	36	--	13	20	56	18	6

Physical violence	50	33	--	17	23	51	16	10
Negligence and Psychological abuse	64	20	--	16	35	44	14	7

Source: Survey Data

The response of the members in this regard revealed that about 41 percent of them registered strong protest against physical abuse by the husband in post-SHG period, which was much lower during the pre-group situation (17%). Gambling as well as drunkenness was also protested against by 46 percent of the members during the post-SHG period which was more than 4 times the 11 percent who could protest during pre-group situation.

For the purpose of quantifying the changes in behaviour of the sample members after joining the SHGs they were asked to report their views on a set of situations like verbal abuse, physical violence, etc. In addition, responses to whether the members had an option to lodge any complaint on the above situations were also obtained. For convenience here we have excluded any possibility of overlapping of these responses. Only the first priority according to the members on each issue has been considered.

About 51 to 64 percent of the members have reported that they had no other option except to submit themselves to these abusive situations in (Table 5i) with only 20 to 36 percent of the members willing to resist such behaviour the pre-SHG period. However, in the post-SHG situation there was a definite shift in the pattern of their behaviour during these adverse situations. In the post group formation period, only 20 to 35 percent of the members still did not have the courage to resist and would have submitted themselves to these abuses, while about 44 to 56 percent of the members have reported their willingness to resist these adverse situations. Further, after group formation the help from the group itself in these situations induces and encourages members to confront their abusers and lodge complaints to the group for redress. While about 14 to 18 percent of the members have preferred to lodge complaints to the group, only 7 to 10 per cent of the members went so far as to lodge complaints to local government (such as panchayat) or local police stations against the perpetrators in the post-SHG period. In the absence of the groups in the pre-SHG period, as much as 13 to 16 percent of them were forced to approach either the panchayat or the police.

The proportions of members who preferred to lodge complaints to the police or local government have declined in the post-SHG period. It may be due to two reasons: (i) After formation of SHG, the group has been successful in projecting itself as an institution which can take care of different household-level problems maintaining as much privacy as possible; and (ii) Usually, complaining to local government or police is not a very easy process for the rural poor. They have very limited access to these institutions due to several complexities such as political colour, requirement of bribe to lodge complaints, lack of interest on the part of the authority to solve such problems quickly, etc. As a result, most try to avoid such institutions, especially in cases where the problems are internal to the households.

4. Conclusions

The 'Self Confidence' and 'Behavioral' comparison of the SHG members on the above issues between pre- and post-SHG situation clearly indicates a positive shift of the member's attitude towards the path of self confidence and empowerment. The table also indicates that enough room is still left for further improvement. A significant portion of the women member households are still in the vulnerable situation even after joining in self help groups. From this crude picture we can also guess the situation of non-group members (homogeneous with group members) within the household and society. We should always remember that implementation of law-legislation and different supply led pro poor programmes are not panacea to reduce domestic violence. For the social up-liftmen of the rural poor especially women, we should offer a combination of opportunities such as education, health service, sanitation, employment opportunities, etc, at the one hand and should reduce unhealthy social custom, superstition, different malpractices, etc., on the other hand. Only then we can see a better world.

References

Y. Gil, R. Gordon, J. Best & S. Choudhary (2020). Challenging the links between microfinance and domestic violence: evidence from rural

India, *Development in Practice*, Taylor and Francis, Vol 30, Issue -3, 2020, pp-345-356.

ILO (2004). Economic Security for a Better World*. International Labour Organisation*, 2004, Geneva.

Kabeer, N. (1999). The Conditions and Consequences of Choices: Reflections on the Measurement of Empowerment. *UNRISD Discussion Paper DP 108 (Geneva, United Nations Research Institute of Social Development).*

Meenai, Z. (2003). Empowering Rural Women: An Approach to Empowering Women Through Credit-Based Self Help Groups. *Aakar Books, Delhi.*

NABARD (2018). NABARD AND MICROFINANCE*. National Bank for Agricultural and Rural Development, 2018, Mumbai*

NABARD (2010). Annual Report, 2009-2010. *National Bank for Agriculture and Rural Development, Mumbai.*

Puhazhendhi, V and K. J. S. Satyasai (2000). Microfinance for Rural Poor: An Impact Evaluation. *NABARD, Mumbai.*

Sahoo, H and M. R. Pradhan (2007). *Domestic Violence in India: An Emperical Analysis.* Discussion Paper.

Annexure - 1

Descriptive Statistics of Some Important Components of Basic Security

Income Security		
Variables	**Mean**	**Standard Deviation**
Income (monthly)	0.58	0.49
Savings (per annum)	0.35	0.48
Average wage/ income per hour	0.49	0.50
Saving bank/ Other bank account holding	0.61	0.49
Level of Education	0.59	0.49
Special Training	0.19	0.39
Alternative Job Opportunity	0.37	0.48
Social Security		
Total Asset Holding (in Rs.)	0.48	0.50
Insurance	0.26	0.44
Access to different Social Security Scheme	0.22	0.42
Voice-representation Security		
Power to cope with different household level problems	0.52	0.50
Increased influence over household's economic resources	0.40	0.49
Mobility Outside Village	0.42	0.49
Access to proper information	0.39	0.49
Raise or discuss different issues at Gram Panchayat/ Gram Sangsad meeting	0.31	0.46

LOOK EAST
Vol. 7, No. 1, 2021, pp. 12-31

Prospects of the Second Demographic Transition in Kolkata: Preferences of Unmarried Women

Monorisha Mukhopadhyay*

Abstract

Fertility decline is explained by change in attitude of the individual towards marriage and childbearing and preferences for number of children. This paper focuses on opinions and preferences of single women in a low fertility sub-population of Kolkata. A two-stage systematic random sampling method had been chosen with city wards as the first stage unit and married women as second stage unit. It is entirely based on primary information collected through semi structured questionnaires and face to face interview schedules. The study shows that preference for small families is high, idea of non-marriage is not widespread and idea of sexual liberation is not accepted widely in practice. The phenomenon of voluntary childlessness is found little support in the studied population. The responses indicate that the low fertility in Kolkata has been achieved without actually following the path of the Second Demographic Transition.

Keywords: *Fertility behaviour, Low-fertility, Non marriage, Education*

1. Introduction

Fertility decline in Asian countries has been taking place in the past decades. The Asian countries are grouped into two broad regions; east and southeast Asian countries and south Asian countries. The lowering of fertility in the former had been largely governed by the change in marriage patterns where voluntary childlessness from voluntary non-marriage played a substantial role in the fertility decline of the region (Jones 2007). Southeast Asian countries like

* *Dr. Monorisha Mukhopadhyay, Department of Geography, Rishi Bankim Chandra Evening College, Email - mono.jnu@gmail.com*

Myanmar, Japan, Thailand, Singapore, Malaysia, Taiwan, South Korea and Indonesia had begun to avoid marriages or postpone their marriages; since it is likely that societies industrialize and urbanize when they converge toward western conjugal life (Cherlin 2012); though this argument has received criticism from several quarters (Jones 1995). In the past, in these countries, marriage was near-universal but the trend is gradually changing. In general, the age of marriage and proportion not marrying at all is rising greatly with the abandonment of traditional universal marriage and shift in preference towards singlehood.

After the late 20th century, with an increasing level of education among girls, the rate of arranged marriages declined. This happened as there was a less structural need for sustenance of the arranged marriage system. Rather, increasing levels of education and self-reliance have prompted later marriages and subsequently fewer marriages in east and southeast Asia (Jones 2005). The weakening of arranged marriages is a clear effect of the remarkable development of women's education in urban areas and the increased involvement of women in economic activities (Anderberg & Yu Zhu 2009). Besides economic security, education gave a fulfilling career thus giving an alternative route to self-fulfilment through marriage and childbearing (Jones 2005).

Education in women makes them certain about their preferences and they often unwilling to marry unless expectations are met. It is likely that the lack of partner is compensated by a peer group with the same mental plane where the likelihood of monotony is reduced (Jones 2010). It was found that both highly educated women and less-educated men faced difficulties in getting a partner. The opportunity cost of marriage and family formation was greater for educated women. Moreover, educated women develop values that were feministic while the male remained traditional in their value judgments and thinking. Thus, in addition to the shortage of male partners, it was more of scarcity in terms of thought (Quah 1998; Tsuya & Bumpass 2004).

Besides, it is still expected from a girl to de-prioritize their parents after marriage. Educated and self-reliant girls who are often a single child themselves avoid marriage as they feel that it will not be possible for them to look after their ageing parents. Also, post-marriage, instead of co-sharing of the household responsibilities by both the partners it is still expected that the effective functioning of the household will be the primary responsibility of the women.

This is often anticipated as an added burden to the women. All these factors have led to the wearing down of the idea that marriage has to be preserved at any cost.

On the other hand, in south Asia, universal arranged marriages is still a norm in society. In Bangladesh, and India around 99 per cent of marriages were estimated to be arranged (International Institute of Population Sciences [IIPS] & ORC Macro 2000; Islam, Mamun, & Bairagi 1998). By 1990s, south Asian women from Bangladesh, India and Nepal were marrying before 20 years of age but there was an indication of rising age at marriage (Choe, Westley & Retherford 2002). Particularly, in India kinship involves principles like exogamous marriage, and non-inheritance of property by females (Jones 2010). In India arranged marriages are seen as an easy way to uphold the family honour, chastity and humility (Desai & Lester 2010). The Hindu system emphasizes the absorption of the wife into the husband's family (Jones 2010). Marriage is generally viewed as a permanent arrangement, and divorce rates, although rising, are still quite low. Furthermore, a large regional diversity in age at marriage is an intrinsic characteristic of the country (Visaria 2004).

The discussion reflects that the family norms in south Asia in general or India, in particular, are distinctively different and function differently from the way the east and southeast Asian do (Choe et al. 2002). The debate on demographic behaviour in India had been well explored under the framework of the Demographic Transition Model which was driven by socio-economic needs. The popular academic discourses in the country are highly polarized towards the disparate demographic rates between the southern and the northern states in India (Dyson & Moore 1983); where more emphasis was given to factors like the traditional role of women, son preferences and early age at marriage (Uberoi 1993).

In contrast, there is a pocket of sub-population in Kolkata where couples are going for late marriages or a lesser number of children (Ghosh 2017). For that matter, West Bengal had been historically experiencing a low fertility regime (Basu & Desai 2016). The Calcutta Fertility survey conducted in 1970 studied the fertility level in the Calcutta Metropolitan area. The marital fertility rates in European countries corresponding to early reproductive years were higher than those observed for Kolkata (Indian Statistical Institute, 1974). The fertility transition in Kolkata started in 1970 and achieved the lowest TFR of 2.0 in India. A recent study based on reverse survival estimation using the 2011 census revealed that the TFR of the city of Kolkata had come down to 1.2 (Guilmoto & Rajan 2013). It seems the value system of sub-population residing in Kolkata is inadequately captured in the history of demographic literature in the state (Basu & Amin, 2000: 4).

Summarizing the hypotheses

This paper hypothesis that the probable divergence of low fertility in the sub-population of Kolkata may possibly be explained by the Second Demographic Transition (SDT).

The phase of lowest-low fertility in southern, central and eastern Europe (Kohler, Billari & Ortega 2002) led to the emergence of SDT (Van De Kaa 1987). Some of the characteristics of SDT were non-marital childbearing, adoption of modern contraception, voluntary childlessness, legitimization of cohabitation, individualism and emphasis on personal lifestyle (Van De Kaa 1994). The SDT theorized that a large proportion of women would forego marriage when they start getting educated and become economically independent and fertility decisions would be primarily guided by individual choices. With the associated affluence of economic growth, there will be a shift from “irreducible needs” to “higher-order needs” (Lesthaeghae & Surkyn 1988). Higher-order needs stress individualism, love, freedom, shift in value orientation and preferences (Maslow 1954).

The idea of SDT had been criticised from various quarters. It has been argued that there is no clear cut transition between the first and second demographic transition (Cliquet 1992). The terminology was also not accepted widely as it was argued that SDT deals more with transition in the living arrangement rather than demographic behaviour (Coleman 2004). It was argued that within Europe there was a large number of anomalies in family patterns and demographic behaviour which is not possible to accommodate under one umbrella of SDT (Micheli 2004: 127; Sobotka 2008). Moreover, most of the propositions that surround SDT were based on European countries. Although the convergence of similar phenomenon has been noticed in developed countries of east and south-east Asia with diverse family systems and fertility behaviour (Sobotka 2008).

In this paper, the principal conjecture is that the divergence of low fertility in Kolkata and the associated change in behaviour can be attributed to the onset of SDT. This will result in a change in the socio-psychological perception of the society from traditional domestic roles to the attainment of individual aspirations (Basu & Desai 2016). Accordingly, this article tries to explore the following questions: Firstly, What will the attitudes and opinions of the singles be towards marriage and childbearing in a society that is experiencing sub-replacement fertility within a broader societal framework where the traditional notion of marriage and childbearing still exists? Secondly, can the shift in attitude be attributed to a shift in the value system in line with the SDT?

Methods and Materials

The psyche of the unmarried girls towards marriage and childbearing is significant as these women are probable future mothers and their inclination will indicate the course of family building and the level of fertility in the population. The proportion of ever-married women in the age group 30-34 years was about 93 per cent for urban females which showed that proportions of never marrying were small (RGI 2014). So far, four rounds of the nationally administered demographic and health survey namely the National Family and Health Survey (NFHS) had been conducted and the reports of these were published. The estimates from the third round (IIPS 2007) and fourth round (IIPS 2017) showed that the proportion of unmarried girls in urban areas of West Bengal was about 13 per cent and 12.2 per cent in the age group 25- 29 years and 3.8 per cent and 4.2 per cent at age 40 to 49 years respectively. In India most of the fertility surveys in the past covered only married women; the NFHS covered unmarried women but did not collect information on attitudes towards marriage, cohabitation etc. In view of the need for the information from unmarried women, a field survey conducted by the researcher covered unmarried women in addition to married women. Particularly for this study primary survey becomes important to understand their views on education, career, the necessity of marriage, attitudes towards childbearing, notion of family size and childbearing outside the ambit of marital institution.

This paper is primarily based on the information collected from unmarried women in Kolkata. In a metropolis like Kolkata, the population is widely heterogeneous i.e., varies socially, economically and demographically. Therefore, a two-stage systematic random sampling method had been chosen with city wards as the first-stage unit and currently married and unmarried women from these as the second stage unit. Kolkata covers an area of 185 square kilometres and is divided into 141 municipal wards and four special wards (RGI 2011) and among these 141 wards, four wards were chosen for the sample survey. Female Literacy Rate was chosen as an indicator to arrange the wards in descending order and a systematic sample of four was selected; this amounts to implicit stratification by female literacy. The data from the 2011 census were not available at the time of data collection and hence the selection of wards was based on the data from the previous census, 2001. From each ward two localities, one identified as poor and the other as non-poor were selected based on the local enquiries and perception of the researcher. After listing households in each locality, it was proposed to select 25 currently married in the age group of 15-49 years and 12 unmarried women in the age group of 16-40 years at random but to allow for non-response up to 30 currently married women of reproductive age and 15 unmarried women in the age group 15-40 years were selected from each locality (The findings associated with married women are discussed in a separate paper)**.** Structured interview schedules were prepared.

The data were collected between February and March 2014. Unmarried girls were asked about career objectives, opinions on the institution of marriage, the ideal age of marriage, ideal family size and notions on childbearing outside marriage. Besides, information on the socio-economic background was collected. The primary aim of the paper was to get the opinion of the respondents which is unlikely to change in recent times with the sustained low fertility in the studied region. The possible role of factors such as education, level of income (or poverty), female employment and religion on marriage and childbearing is well recognized in demographic literature. (Isen & Stevenson 2010). Also, uncertainty of future jobs makes people go for higher education so that eventually they get better placed in the job market (Adsera 2004). Family is one of the important institutions of our society. Thus, family system is one of the institutional factors that determine the value orientation, individual choices and in turn develop opinion about marriage and number of children. For example, joint family system encourages higher number of children (Bebarta 1966: 633; Shaw 1988: 329). In such families there are elders to look after the new member in the family. Moreover, members other than in-laws put pressure on women to bear children in the first few months of the marriage. Given India's caste structure, belonging to a caste, especially to highly deprived and traditionally socially excluded groups like the Scheduled Castes (SC) and tribes can have a bearing on institutions like marriage followed by childbearing. The influences of modern education and socio-economic transformations have led to enormous changes in the existing pattern of choosing one's life partner and marriage practices in India (Goli, Singh & Sekhar 2013). Besides, the role of cultural factors influencing low fertility in Bengali speaking population had been discussed in literature (Basu & Amin 2000).

In this paper caste (Scheduled Caste, 'others'), education (no education, primary, secondary, graduate, post graduate), mother tongue (Bengali, 'others'), religion (Hindu, 'others'), type of family (nuclear, non nuclear), household income (<10,000, 10001-25000, >25000 rupees per month) and type of locality (non poor and poor) were included as explanatory factors of attitudes on marriage and childbearing. It is to be noted that the information on household income is discussed as given by the respondents. Also, the nature of the locality was based purely on the perceived judgment of the researcher as assessed by personal observation and categorized as non poor and poor. Reporting of income was often incorrect but the purpose here was to obtain a broad categorization on the basis of income and not a precise estimation of income.

The differentials on opinions and attitudes were presented by background characteristics in the paper. It was recognized that some of the background factors were associated and ideally multivariate analysis should be carried out to assess net influences of various factors. However, the number of respondents was too small to permit a meaningful multivariate analysis. To find out the association chi-square test was carried out. Chi-square test is a statistical test commonly used to compare observed data with data that is expected to obtain according to a specific hypothesis. The distribution used in the paper will help in understanding the attitude and behaviour of the sample group. It must be noted that this paper is based on the responses of women from Kolkata. This is not an average or typical population of India and generalization to India or to urban India would not be appropriate

Opinion of unmarried women on necessity of marriage

The changes that arrived with SDT brought along with it changes in value orientation and preference for marriage, family and childbearing. But it is also important to understand the significance of forming a family. Gary Becker in his Treatise on the family (Becker 1981) commented that husband and wife complemented each other in a marriage as husband specializes in market activities and wife specializes in the domestic activities. But this production complementariness became weak in the twentieth centuries when there was an increase access to education, decline in labour market discrimination and increase in wage rate. Consequently the declining value of production efficiencies decreased the value of marriage. Delayed or avoidance of marriage can be assumed to be closely linked particularly in the southeast Asian countries (Jones 2007). On the other hand, in south Asia most of the unmarried women stayed at home and marriage signals the initiation of conjugal life and progression towards family building (Jones 2012).

In the survey, unmarried girls were asked whether they thought marriage is at all necessary for girls (Table 1). About four out of ten opined that marriage is not necessary for girls. A large proportion of girls believed that girls can do without marriage but it is indispensable for boys. They believed that economically independent women can take care of themselves and eventually marriages can be forgone. A higher proportion of women from older age cohort felt that marriage is not necessary for women. Often in the process of attaining higher education and pursuing challenging career women miss the right age as perceived by the society (Jones 2007). Moreover, they lack choice of a good partner who will be at the same or higher mental plane. The views shared by the respondents referred to marriage in general and may not be the same for the girls' own marriage. Many respondents linked non- marriage with economic independence and felt that 'marriage will curb their freedom and can be forgone if economic independence is achieved'. Some girls also associated marriage with 'increasing hassles and domestic troubles'. When the responses were cross-classified across the socio-economic background it was found that the preference for avoidance of marriage was significantly higher among Bengali speaking women. They were found to believe that one may forgo marriage and live a comfortable life. Thus among all the background variables ethnicity of the women was found to be more crucial in shaping the opinion of the respondents.

Similarly, when asked to the girls whether they think marriage is necessary for boys, about one-fifth said that marriage was not necessary for boys (Table 2). When the responses were cross-classified across the socio-economic background it was found that age of the women significantly affect the opinion on avoidance of marriage for boys. The women from higher age cohort gave more explicit responses and six out of ten women believed that marriage is indispensable for boys (Table 2).

In the sample population it was found that marriage is still an important institution and for a majority alternative living arrangements were not foreseeable in the recent future. However, at very nascent stage, there is an undercurrent of shift of opinion in favour of non marriage. The respondents generally believed that 'Marriage is necessary for girls as one gets a partner with whom they can share their feelings'. Some also said that 'Marriage provides a partner for old age and a support in the absence of their parents'. A few had also internalized marriage as being one of the important events of life and did not think of any deviation. Respondents also opined that 'Marriage is necessary to continue with their progeny and often remaining unmarried is a taboo in the society'. Girls generally believed that marriage is more important for boys and they (men) would not be able to do without it. Apart from established views like 'It is the responsibility of the boys to carry forward the family name', some of the responses were in favour of marriage for boys. Quite a handful of women felt that 'Boys are mentally weak' and as a result 'They need someone to take care of them especially in the old age'. Therefore, from the survey it reflected that substantial proportion of young single women does not think that marriage is an absolute necessity. Thus, at least a non-negligible portion of unmarried women were thinking along the lines of the SDT.

Ideal age of marriage

In Indian context the conjugal life is believed to be starting after marriage. So the ideal age of marriage will give a direction towards childbearing and family building. Respondents during the survey were asked in general what they feel is an ideal age of marriage. Separate questions were asked for ideal age of marriage for a boy and a girl. The question was asked for an exact age but many responses were in the form of a range. Hence in the analysis the ideal age had been discussed in terms of range. The age ranges used were 15-19 years, 20-24 years, 25-29 years and 30 years or above respectively.

The median had been calculated to get the middle value as mean was liable to get affected by extremes. The respondents were categorized into three age groups 15-19 years, 20-24 years and above 25 years. Among younger girls about half said that an ideal age of marriage for girls was between 25-29 years. As the age of the single women increased most (for about 84 per cent) of them stated that the ideal age of marriage should be between 25-29 years. About one-fifth of the respondents above 25 years opined that ideal age is 30 years and above (Table 3). Among younger respondents, half felt that the ideal age of marriage for boys is between 25-29 years and about one-fifth believed that it is above 30 years. Over half of the girls above 25 years of age considered that boys should ideally get married after 30 years of age. A large section considered that age above 30 years is ideal for boys to get married.

When the respondents were probed about the age at which they were comfortable getting married, the range varied with age. About four-fifths of the younger girls said they wanted to marry between 25-29 years and of the girls 25 and above, one-third preferred marriage after the 30th years of age (Table 3). There can be a post-facto rationalization as women stated higher ideal age of marriage than their own age. There was also a section of girls above 25 years, about one-fifth, who were either not sure of marriage or do not want to get married in the future. Thus, there is some preference among the respondents to postpone the age at marriage and some women of higher age cohort even wanted to forego marriage altogether.

Fertility preferences

Sociologists and demographers have tried to explain fertility decline by a change in the attitude of the individual toward marriage and childbearing and preference for the number of children (Hakim 2003). The set of preference in a population will bring about change in the fertility pattern only if the dynamics of the behavioral pattern changes. The respondents were asked, "What do you think should be the ideal family size?" Four out of ten said that their ideal family size is one. About half of the girls preferred two as their ideal size. For less than four per cent the ideal family size was three or above. Thus, about half of the respondents considered two as the ideal family size. There were no respondents who preferred a childless family. These further points out the fact that voluntary childlessness is still not acceptable in society. Although, the survey results point to a shift in inclination towards one-child family as women in Kolkata were keen to have small families.

The fertility preference of currently married women was also studied during the study (the details of the results have been dealt with separately in another paper). A highlight of the result will help in understanding the purview from both sides. Similar reflection was observed during the field investigations where 25 per cent of currently married women were inclined to have a one child family. The NFHS- III estimate also corroborated this as it showed that about 35 per cent of the currently married women in Kolkata and 27 per cent in urban

West Bengal idealize a family with one child (IIPS and ORC Macro 2007). In recent estimates by NFHS-IV (2015-16) it showed that about 22 per cent of the women currently in union or living with a man idealize a family with one child.

The preference may also vary with socio-economic differentials and chi-square analysis was done to see the association of highly interlinked background variables. The result showed (Table 4) that the preference for a one-child family was significantly higher among Bengali speaking women, who follow Hinduism and those with higher education. However, the phenomenon of voluntary childlessness which is one of the essential features of the SDT has found little support in the studied population.

Opinion of unmarried women on childbearing outside marriage

In the survey, girls were asked about their opinion on childbearing outside the institution of marriage. This was to find out how they feel about co-habitation and how much importance they attach to marriage as a requirement for childbearing. About one-fifth of unmarried women said that they had no objections to 'Others' bearing children outside the wedlock but were reluctant to do the same themselves. About three-fourths (Table 5) said that 'The concept is still not acceptable in the society' and four per cent were not sure of the idea. Thus, sexual liberation does not seem to have caught up in society and in this respect, the conditions of SDT have not developed to the extent seen in many European countries (Sobotka, Zemen & Kantorova 2003).

When the responses were cross-classified by socio-economic background it was found (Table 5) that the age of the women and the income of the household significantly affect the idea of childbearing outside the institution of marriage. Chi-square analysis showed that the women from a higher age cohort and who reside in a non-poor locality were significantly more open to the idea of childbearing outside the institution of marriage. The progressive thinking may have developed because of education and the more liberal family setup of the Bengali speaking population of the city. However, these attributes were associated and in the absence of a further rigorous multivariate analysis, it is difficult to pinpoint a specific one as the principal factor.

Conclusions

In this paper attitudes of singles towards marriage, fertility preferences, living arrangements and childbearing outside the ambit of the marital institution in a sub-population experiencing low fertility were presented. The results indicated that almost everyone is adapted to the urban lifestyle and holds views which are primarily liberating. It becomes imperative to understand the psyche of the people which has been framed over a long evolution of culture. This can be stretched long back in history when the phenomenon of having less number children got a boost with the renaissance in the eighteenth century, the change in socio-cultural milieu, and the advent of modernization (McDonald 2008).

Introduction of social customs, western education and education to girl child had a strong influence and gave rise to a new class popularly called "*bhadrolok*". They were pioneers of modern thoughts and liberal outlook; thus infusing into the society a culture of liberal attitudes and social revolution. Eventually, these liberal ideas were adopted by the larger non-elite classes and slowly the latter group adopted the idea (Hakim 2003). The status of women rose as a result and more and more emphasis was given to education. This was well translated into the size of the family; where importance was given to proper education and the right nurturing of the child. This is also reflected in the present paper that education has a fertility depressing effect. Education gives a woman basket of choices while taking decisions on life events like choosing a career, a life partner, and embracing motherhood. Apart from appreciating reproductive roles she also attaches importance to individual rights and accomplishments. Cultural factors like mother tongue and religious affiliation are more likely to influence the preferences and attitudes of the respondents than the individual socio-economic factors.

It is logical that the various triggers had determined a set of preferences in a population that changed marital norms and family building decisions. The study shows young girls continue to hold marriage as an important institution. It is seen that girls consider marriage as a natural progression though prefer to get married at a relatively higher age. Respondents look for a partner from marriage and most of them have internalized the idea that marriage is part of life. At the same time, it is interesting to note that quite a few unmarried women believed that marriage can be forgone if economic independence is achieved. In the study, it was found that there is a tendency to postpone the age at marriage. But the proposition of a large number of girls avoiding marriage is not true in the studied sub-population.

Overall, there is an undercurrent of desire for small families; the preference for one child is emerging rapidly among single women. Additionally, it was found that belonging to a particular ethnicity (Bengalis) has bearing on the decision of choosing a particular number of children. The phenomenon of voluntary childlessness found little support in the studied population. A large proportion of unmarried women want to have at least one child and not many prefer to forego childbearing altogether. Therefore, it can be argued that the cultural shift may have taken place but the shift in demographic behaviour has not happened from family-centric model to an individual model as envisaged in SDT.

Also, there is some acceptance of childbearing outside the conventional wedlock. Though a vast majority does not favour this, it can be considered as an initial phase towards a more liberating and innovative society. This can be said as an extension of post-modernism which started in Europe in the mid-1960s and heralded the beginning of the SDT. Also, the idea of sexual liberation is accepted in principle by a small section of the population yet is not in practice by the vast majority. Thus, it will be prudent to say that although the women of Kolkata have moved along some dimensions of the SDT, the low fertility in the region has been reached without actually following the path of the European, east and southeast Asian countries.

Declaration of Conflicting Interest:

The Author declares that there is no conflict of interest. This work has not been used on any other platform, digital or print and it is an original research study.

References

Adsera, A. 2004. 'Changing fertility rates in developed countries: The Impact of Labor Market', Institutions, *Journal of Population Economics,* 17(1): 17-43.

Anderberg, D., & Zhu, Yu. 2010. The effect of education on marital status and partner characteristics: Evidence from the UK. CESifo, Working Paper Series, 3104.

Basu, A., & Amin, S. 2000. 'Some Pre-Conditions for Fertility Decline in Bengal: History, Language, Identity and an Openness to Innovation', *Population and Development Review,* 26(4): 761-794.

Basu, A., & Desai, S. 2016. 'Hopes, Dreams and Anxieties: India's One-Child families', *Asian Population Studies*, 12(1): 4–27.

Bebarta, C. P. 1966. 'Family type and fertility: A study in six Delhi villages', *Economic and Political Weekly,* 1(15): 633-634.

Becker, G. 1981. *A Treatise on the Family*. Cambridge Mass: Harvard University Press

Cherlin A. J. 2012. *Goode's World Revolution and Family Patterns* : A Reconsideration at Fifty Years Population and Development Review 38 (4) 577-607

Choe, M. K., Westley, S.B., & Retherford, R. 2002. Tradition and change in marriage and family life. In: Retherford et al. (eds), *The future of population in Asia.* pp. 29-39. Honululu: East West Centre.

Cliquet, R. 1992. *The second demographic transition: Fact or fiction.* Strasbourg: Council of Europe.

Coleman, D. 2004. 'Why we dont have to believe without doubting in SDT: Some agnostic comments', *Vienna yearbook of Population Research,* 11-24.

Desai, S, & Lester, A. 2010. 'Gender scripts and age at marriage in India', *Demography,* 47(3): 667-687.

Dyson, T., & Moore, M. 1983. 'On kinship structure, female autonomy, and demographic behaviour in India', *Population and Development Review,* 9(1): 35-60.

Ghosh, S. 2017. 'Second demographic transition or aspirations in transition: A exploratory analysis of lowest low fertility in Kolkata', *Asian Population Studies,* 13: 25-49.

Goli, S., Singh, D. & Sekher, T.V. 2013. 'Exploring the myth of mixed **marriages** in **India**: Evidence from a nation-wide survey', *Journal of Comparative Family Studies,* 44 (2): 193-206.

Guilmoto, Z. C., & Rajan, S. I. 2013. 'Lessons from 2011 Census: Fertility at the District Level, *Working Paper series* CEPED, Paris.

Indian Statistical Institute, (1974). Calcutta Fertility Survey: 1970 Unpublished Report, Kolkata.

International Institute of Population Sciences and ICF. 2017. National Family Health Survey (NFHS-3), 2015-16. Mumbai: International Institute of Population Sciences.

International Institute of Population Sciences and Macro International. 2007. National Family Health Survey (NFHS-4), 2005-06. Mumbai: International Institute of Population Sciences.

Hakim, C. 2003. 'A new approach to explaining fertility patterns: Preference theory', *Population and Development Review,* 29(3): 1-26.

Isen, A., & Stevenson, B. 2010. 'Women's education and family behavior: Trends in marriage divorce and fertility'. NBER *Working Paper series*-15725, National Bureau of Economic Research, Cambridge.

Islam M. M., Mamun A. A., & Bairagi, R. 1998. Fertility and its proximate determinants in Bangladesh: Evidence from the 1993/94 Demographic and Health Survey'. *Asia Pacific Population Journal* 13(3) 3-22

Jones, Gavin. 2012. 'Changing family sizes, structure and functions in Asia', *Asia Pacific Population Journal*, 27 (1): 83-102.

Jones, Gavin. 2010. 'Changing Marriage Patterns in Asia'. Asia Research Institute, *Working Paper Series* No. 131, Singapore: Asia Research Institute.

Jones, Gavin. 2007. 'Delayed marriage and very low fertility in Pacific Asia', *Population and Development Review,* 33 (3): 453-478.

Jones, Gavin. 2005. 'The flight from marriage in east and southeast Asia', *Journal of Comparative Family Studies,* 36(1): 93-120.

Jones, Gavin. 1995. 'Population and the family in southeast Asia', *Journal of Southeast Asian Studies*, 26 (1): 184-195.

Lesthaeghe, R., & Surkyn J. 1988. 'Cultural dynamics and economic theories of fertility change' *Population Development Review,* 14 *(*1): 1–45.

Kohler, H.P., Billari, F. C., and Ortega, J. A. 2002. 'The emergence of lowest-low fertility in Europe during the 1990s', *Population and Development Review* 28(4): 641–680.

Maslow, A. H. 1954. *Motivation and Personality*. New York: Harper and Row.

Mc. Donald, P. 2008. 'Very low fertility: Consequences, causes and policy approaches', *The Japanese Journal of Population*, 6(1): 19-23.

Micheli, G. 2004. 'On the verge of familistic interpretation', *European Studies of Population,* 14: 127-160.

Quah, Stella R. 1998. *Family in Singapore: Sociological Perspective*., 2nd Edition, Singapore: Times Academic Press.

Shaw, A. 1988. 'Fertility and child spacing among the urban poor in a third world city: The case of Calcutta, India', *Human Ecology,* 16(3): 329-342.

Sobotka, T. 2008. 'The diverse faces of second demographic transition in Europe', *Demographic Research (Special Collection),* (19): 171-224

Sobotka, T., Zemen, K., & Kantorova, V. 2003. 'Demographic shift in the Czech Republic after 1989: A second demographic transition view', *European Journal of Population*, 19(3): 249-277

Tsuya, N.O., & Bumpass, L. 2004. Marriage, Work and Family Life In Comparative Perspective: Japan, South Korea and the United States. Honolulu: University of Hawaii Press.

Registrar General of India (RGI). 2011. 'Provisional population totals, paper 1 of 2011: Census of India 2011, Series 1- India'. New Delhi: Controller of Publications.

Registrar General of India (RGI). (2014). 'Primary census abstract 2011'. New Delhi: Ministry of Home Affairs, Government of India.

Uberoi, P. 1993. *Family, kinship, and marriage in India*. Delhi: Oxford University Press.

Van De Kaa, D. J. 1994. The Second Demographic Transition revisited: Theories and expectations. In: G.C.N. Beets et al. (eds.), *Population and the family in the Low countries.* pp. 81-126. Lisse: Zwets and Zeitlinger.

Van De Kaa, D. J. 1987. 'Europe's second demographic transition', *Population Bulletin,* 42(1): 1–59.

Visaria, L. 2004. The continuing fertility transition. In: T. Dyson, R. Cassen & L. Visaria (eds), *Twenty-First Century India: Population, Economy, Human Development and the Environment.* pp. 57-73. Oxford: Oxford University Press.

Table 1: Opinion of unmarried women on necessity of marriage for women, Kolkata

Background Variables	Categories	Marriage necessary	Marriage not necessary	Do not know	Chi Square coefficient	Total
Total		53.6	42.7	3.6		110
Age at	15-19	54.2	43.8	2.1	0.648	48
	20-24	55.3	36.8	7.9		38
	25+	50.0	50.0	0.0		24
Caste	SC/ST				0.552	11*
	Others	54.5	42.4	3.0		99
Education	No	48.0	48.0	4.0	0.928	25
	Secondary/Higher	53.7	42.6	3.8		54
	Graduation/Post	58.1	38.7	3.2		31
Religion	Hindu	49.5	46.3	4.3	0.173	95
	Others					15*
Type of	Nuclear	54.4	44.1	1.5	0.432	68
	Non Nuclear	52.4	40.5	7.2		42
Mother	Bengali	45.7	49.4	4.9	0.041	81
	Others	75.9	24.1	0.0		29
Income (Rs/	< 10,000	55.6	44.4	0.0	0.266	36
	10,001-25,000	39.5	52.6	7.9		38
	> 25,000	64.7	32.4	2.9		34
Type of	Non-Poor	50.9	42.1	7.1	0.273	57
	Poor	56.6	43.4	0.0		53

Note: 1. Figures in parentheses are less than 20; 2.: Distributions are not given if the total number of women in the category is less than 20.0*
Source: Computed from primary data

Table 2: Opinion of unmarried women on necessity of marriage for men , Kolkata

Background Variables	Categories	Marriage necessary	Marriage not	Do not	Chi Square	Total
Total		54.5	20.0	25.4		110
Age at survey	15-19	58.3	20.8	20.8	0.083	48
	20-24	44.7	13.2	42.1		38
	25+	62.5	29.2	8.3		24
Caste	SC/ST				0.619	11*
	Others	52.5	21.1	26.3		99
Education	No	68.0	8.0	24.0	0.559	25
	Secondary/higher	51.9	24.1	24.1		54
	Graduation/Post	48.4	22.6	29.0		31
Religion	Hindu	51.6	21.1	27.4	0.465	95
	Others					15*
Type of	Nuclear	52.9	20.6	26.5	0.572	68
	Non Nuclear	57.1	19.0	23.8		42

Mother	Bengali	50.6	23.5	25.9	0.382	81
	Others	65.5	10.3	24.1		29
Income (Rs/	< 10,000	58.3	19.4	22.2	0.895	36
	10,001-25,000	50.0	21.1	28.9		38
	> 25,000	55.9	20.6	23.5		34
Type of	Non-Poor	49.1	21.1	29.9	0.526	57
	Poor	60.4	18.9	20.8		53

Note: 1. Figures in parentheses are less than 20.; 2.: Distributions are not given if the total number of women in the category is less than 20.*
Source: Computed from primary data.

Table 3: Ideal age of marriage for girls and boys (in general) and for respondents themselves, Kolkata

Ideal age of	Age group of the respondents						
	15-19		20-24		25+		Total
	Per cent	N	Per cent	N	Per	N	
			Marriage for girls				
15-19	10.4	5	0	0	4.2	1	6
20-24	37.5	18	13.2	5	12.5	3	26
25-29	47.9	23	84.2	32	66.7	16	71
30 or more	2.1	1	2.6	1	16.7	4	6
Don't know	2.1	1	0	0	0	0	1
Total	*100.0*	*48*	*100.0*	*38*	*100.0*	*24*	*110*
Median Age	25.1		27.3		27.7		
			Marriage for boys				
15-19	-	-	-	-	-	-	-
20-24	12.5	6	0	1	4.2	1	7
25-29	50.0	24	50.0	19	37.5	9	52
30 or more	22.9	11	42.1	16	54.2	13	40
Don't know	14.6	7	7.9	3	4.2	1	11
Total	*100.0*	*48*	*100.0*	*38*	*100.0*	*24*	*110*
Median Age	28.1		28.3		30.8		
			For respondents themselves				
< 20	12.5	6	0	0	0	0	6
20-24	31.2	15	13.2	5	0	0	20
25-29	39.6	19	78.9	30	50.0	12	61
30 or more	2.1	1	2.6	1	33.3	8	10
Don't know	8.3	4	0	0	0	0	7
Not decided	2.1	1	2.6	1	0	0	2
Don't want	4.2	2	2.6	1	16.7	4	7
Total	*100.0*	*48*	*100.0*	*38*	*100.0*	*24*	*110*
Median age	24.8		27.2		29.7		

Source: Computed from primary data.

Table 4: Ideal family size expressed by unmarried women , Kolkata

Background Variables	**Categories**	**Ideal Family Size (Number of**			**Chi Square coefficient**	**No. of women**
Variables		**1**	**2**	**>2**		
Total		**40.7**	**55.6**	**3.8**		**110**
Age	15-19	37.0	58.7	4.4	0.412	46
	20-24	36.8	63.2	0.0		38
	25+	54.2	37.5	8.4		24
Caste	SC/ST				0.289	11*
	Others	41.2	55.7	3.1		97
Education	No education/Primary	20.8	62.5	16.4	0.005	24
	Secondary/higher	41.5	58.6	0.0		53
	Graduation/Post	54.8	45.2	0.0		31
Religion	Hindu	45.2	53.8	1.1	0.000	93
	Muslim					15*
Type of	Nuclear	40.9	59.1	0.0	0.083	66
	Non Nuclear	40.5	50.0	9.6		42
Mother	Bengali	48.1	50.6	1.3	0.011	79
	Others	20.7	69.0	10.3		29
Income	< 10,000	27.8	61.1	11.2	0.065	36
	10,001-25,000	54.1	45.9	0.0		37
	> 25,000	39.4	60.6	0.0		33
Type of	Non-Poor	45.5	54.5	0.0	0.188	55
	Poor	35.8	56.6	7.6		53

*Note: 1. *: Distributions are not given if the total number of women in the category is less than 20. Source: Computed from primary data.*

Table 5: Opinion of unmarried women on acceptability of child bearing outside marriage, Kolkata

Background Variables	Categories	No	Yes	Can't say	Chi Square coefficient	Total
Total		**73.6**	**21.8**	**4.5**		**110**
Age	15-19	87.5	8.3	4.2	0.004	48
	20-24	52.6	39.5	7.9		38
	25+	79.2	20.8	0.0		24
Caste	SC/ST				0.376	11*
	Others	71.7	23.2	5.1		99
Education	No education/Primary	96.0	0.0	4.0	0.023	25
	Secondary/higher secondary	72.2	24.1	3.7		54
	Graduation/Post graduation	58.1	35.5	6.5		31
Religion	Hindu	70.5	25.3	4.2	0.087	95
	Others					15*
Type of family	Nuclear	77.9	17.6	4.4	0.392	68
	Non Nuclear	66.7	28.6	4.8		42
Mother Tongue	Bengali	72.8	24.7	2.5	0.129	81
	Others	75.9	13.8	10.3		29
Household Income (Rs per month)	< 10,000	97.2	2.8	0.0	0.004	36
	10,001-25,000	60.5	34.5	5.3		38
	> 25,000	64.7	29.4	5.9		34
Type of locality	Non-Poor	61.4	31.6	7.0	0.010	57
	Poor	86.8	11.1	1.9		53

Source: Computed from primary data.

Note: 1. Percentages based on denominator below 20 are shown in parentheses ( ).

*2. *: Distributions are not given if the total number of women in the category is less than 20.*

LOOK EAST
Vol. 7, No. 1, 2021, pp. 32 - 44

A Comparative Study on Return on Equity of Different Indian Banks

Barnali Basu (Banerjee)*
Sanjeev Kumar Srivastaw†

Abstract

With the start of economic reforms, the banking sectors in India have undergone a lot of change both in terms of competition, regulation and technological changes. Return on Assets, Return on Equity, Return on Investment, Spread, etc are important financial measures to judge the performance of banks. Return on Equity (ROE) is the most important indicator of a bank's profitability and growth potential. Two sources of banks are interest income and non-interest income. Foreign banks captured the largest share of non-interest income due to their competitive advantages which contributes significantly in ROE of foreign banks. Our objective is to make a comparative study of paired population mean of ROE for Private, Public sector and Foreign Banks. We have taken 15 years data (i.e., from 2004-05 to 2018-2019) of return on equity for three different banks from RBI website. We mainly use SPSS 17 version for this analysis. On average, return on equity of Public Sector Bank scores lowest, then, scores Foreign Bank and Private Bank scores the highest. The outcomes we get, the mean difference between return on equity of Public Sector Bank and Private scores are statistically insignificant at 95% level. Similarly, the mean difference between return on equity of Public Sector Bank and Foreign Bank scores are also statistically insignificant at 95% level. But the mean difference between return on investment of Foreign Bank and Private Bank is significant. Cohen's - D effect size indicates the highest size difference exists among Private Bank and Foreign Bank, then among Public Sector Bank and Private Bank. And the lowest size difference exists among Public Sector Bank and Foreign Bank. We found a significant difference in the performance of Public sector banks as compared to Private banks & Foreign banks so far as ROE is concerned.

Keywords: *Bank, Return, Equity, Performance, Financial*

---

* *Dr. Barnali Basu (Banerjee), Assistant Professor in Economics, Barasat College, Email: barnalibasubanerjee@gmail.com*
† *Dr. Sanjeev Kumar Srivastaw, Associate Professor in Commerce, Barasat College, Email: srisks1925@gmail.com*

1. Introduction

Banking system in India is quite unique in the sense that there were different categories of banks like private sector banks (old and new), foreign banks, public sector banks, as well as co-operative banks are operating side by side. Commercial banks are the most active and fundamental component of any economy. With the start of economic reforms, the banking sectors in India have undergone a lot of change both in terms of competition, regulation and technological changes. Such changes not only bring greater competition but also improved the quality and availability of financial services. Indian government has taken various initiatives to reform the Banking Sector. These initiatives brought in competitive environment in which public sector banks, private banks and foreign banks all pushing up each other to maximise their market share. Return on Assets, Return on Equity, Return on Investment, Spread, etc are important financial measures to judge the performance of banks. In his article an attempt has been made to evaluate the performance of different Indian Banks on the basis of Return on Equity. ROE is the most important indicator of a bank's profitability and growth potential. A higher ROE is usually better while a falling ROE may indicate a inefficient usage of capital. Return on equity is measured dividing the net profit with average capital and surplus for current and previous year. The return on equity (ROE) reveals how effectively a bank is generating profit from the money that shareholders have invested into the bank. Two sources of banks are interest income and non-interest income. Foreign banks captured the largest share of non-interest income due to their competitive advantages which contributes significantly in ROE of foreign banks.

2. Literature Review

Ramamurthy (1998), in his paper on the profitability and productivity in Indian banking stated that the banking structure and profitability structure of the banking system across the country have a bearing on the profitability of the banks. The author opined that one of the main determinants of banks' profitability is the network of branches, frequently termed as franchise strength.

Makesh K G (2008) in the article Financial Performance Analysis of Commercial Banks tried to compare the performance of banks by decomposing ROE as the product of three components -Net profit margin,Asset yield and financial leverage.The study revealed that the bank having higher profit margin, asset yield and financial leverage also has higher ROE.

Dhanabhakyam and Kavitha (2012) in the article "Financial Performance of Selected Public Sector Banks In India" analysed the financial performance of the selected public sector banks in India. They studied the performances based on ratio analysis, correlation and regression. The selected public sector banks have performed well on during the study period.

Priya.S (2014) in her article on "An Analysis of Profitability Position of Private Sector Banks in India" analysed the overall efficiency and performance of different private sectors banks in India. The various profitability ratios used were interest spread, net profit margin, return on long term loan, return on net worth, return on asset & adjusted cash margin. Profitability ratios provide different useful understandings into the financial strength and performance of a company.

Pandya (2015) analyzed the impact of priority sector advances of scheduled commercial banks operating in India on their profitability. Author, considered all the scheduled commercial banks operating in India for this purpose. Ratios of Priority sector advances to total advances of all commercial banks during the study period taken as an independent variable whereas, Return on Assets (ROA), Return on Investment (ROI), Return on Equity (ROE), Ratio of Operating Profit to Total Assets, (OPTA) and Ratio of Interest Income to Total Assets (INTTA) were taken as dependent variables. The study revealed that there exists a statistically significant relationship among ROI, ROA, OPTA, INTTA. The study further revealed that priority sector advances affect ROA and ROI of the banks.

Neha & Gaba (2015) in their paper tried to analyse the profitability and efficiency HDFC and ICICI bank. The performance of both banks is compared to find out which one is more efficient. Performance and efficiency measurement are done on the basis of Total Income, Total Expenses, Net Profit, Operating Profit, Return on equity, Return on Assets, etc.

Algasen and Bharathi (2017) in their article Fiscal Performance of Commercial Banks in India examining the profitability and financial performance of the selected public sector banks in India from 2012 to 2016. This study is primarily based on the secondary data, financial ratios and coefficient correlation, are used. The study finds that the overall performance of Sate Bank of India is better than the other public sector banks.

Dr. Devarajappa S(2017) examined performance of the Indian Commercial banks by using CAMEL model. The study revealed that, private sectors banks have more efficient than the public sectors banks. It was suggested that government should take steps to liberalize the public sectors banks with respect investment, loans and collection of loan so that public sector banks can compete with private sectors of banks.

4. Objectives

We want to compare the performances of three different banks, public sector, private sector and foreign bank. There are many indicators for accomplishing such comparison. We choose an important indicator. i.e., return on equity. We are particularly interested in the return on equity for different banks. Our objectives are

1. to determine whether public sector bank or private bank has higher test scores on average.
2. to determine whether private bank or foreign bank has higher test scores on average
3. to find out the difference between the paired population mean of return on equity of public sector bank and private bank.
4. to find out the difference between the paired population mean of return on equity of private bank and foreign bank.
5. to compare the difference among each pair of return on equity of public sector bank and private bank
6. to compare the difference among each pair of return on equity of private bank and foreign bank.
7. lastly, to rank the return on equity of public sector bank, private bank and foreign bank.

5. Data and Methodology

We have taken 15 years data (i.e, from 2004-05 to 2018-2019) of return on equity for three different banks, i.e, public sector bank, private bank, and foreign bank from RBI website. These data have been published and used for the present analysis. We mainly use SPSS 17 version for this analysis.

The Paired Samples *t* Test compares two means that are from the same individual, object, or related units. The purpose of the test is to determine whether there is statistical evidence that the mean difference between paired observations on a particular outcome is significantly different from zero. The Paired Samples *t* Test is a parametric test. The variable used in this test is known as: Dependent variable, or test variable (continuous), measured at two different times or for two related conditions or units. Here return from equity is the test variable. Data of return from equity of three different types of banks i.e Public Sector Bank, Private Bank and Foreign Banks of year 2004-05 to 2018-19 are collected. Now we want to see whether any mean difference between public sector bank private bank and foreign bank exists or not? For this, we pursue the paired t test taking two types of Banks as a pair at a time. Then we want to rank the return on equity from different Banks. For this purpose, we calculate the Cohen's D of each pair to compare the difference, so that we can rank the return from equity of different bank.

Paired Samples T-Test Assumptions

It requires the same 2 assumptions. These are Independent observations;

Normality: the difference scores must be normally distributed in the population. Normality is only needed for small sample sizes, say N < 25 or so.

6. Analysis

Paired Samples T-Test Assumptions

It requires the same 2 assumptions. These are: Independent observations**;**

Normality: The difference scores must be normally distributed in the population. Normality is only needed for small sample sizes, say N < 25 or so

Hypotheses

The hypotheses can be expressed is the following.

Hypothesis: H_0: $\mu_1 - \mu_2 = 0$ ("the difference between the paired population mean of return on equity of Public Sector Bank and Private bank is equal to 0")

H_1: $\mu_1 - \mu_2 \neq 0$ ("the difference between the paired population mean of return on equity of Public Sector Bank and Private sector bank is equal to 0).

Hypothesis 2: H_0: $\mu_1 - \mu_2 = 0$ ("the difference between the paired population mean of return on equity of Public Sector Bank and Foreign Bank is equal to 0")

H_1: $\mu_1 - \mu_2 \neq 0$ ("the difference between the paired population mean of return on equity of Public Sector Bank and Foreign Bank is equal to 0).

Hypothesis 3: H_0: $\mu_1 - \mu_2 = 0$ ("the difference between the paired population mean of return on equity of Private Bank and Foreign Bank is equal to 0")

H_1: $\mu_1 - \mu_2 \neq 0$ ("the difference between the paired population mean of return on equity of Private Bank and Foreign Bank is equal to 0).

Our returns on equity of each year data probably hold **independent** observations: each case holds a separate which didn't interact with the other year. Since we've only N = 15, we do require the **normality** assumption. The only way to look into this is actually computing the difference scores between each pair of bank as new variables in our data. We'll do so later on.

7. Problem Statement

The sample dataset has placement test scores for three banks: Suppose we are particularly interested in the return on equity for public sector bank and private bank sections, and want to determine whether public sector bank or private bank has higher test scores on average. We could use a paired *t* test to test if there was a significant difference in the average of the two tests.

There are three tables: Paired Samples Statistics, Paired Samples Correlations, and Paired Samples Test. Paired Samples Statistics gives univariate descriptive statistics (mean, sample size, standard deviation, and standard error) for each variable entered. Notice that the sample size here is 15; this is because the paired t-test can only use cases that have non-missing values for both variables. Paired Samples Correlations shows the bivariate Pearson correlation coefficient (with a two-tailed test of significance) for each pair of variables entered. Paired Samples Test gives the hypothesis test results.

8. Presentation, Analysis and Findings

Although our primary interest when we run a Paired *t* Test is finding out if the means of the two variables are significantly different, it's also important to consider how strongly the two variables are associated with one another, especially when the variables being compared are at different time period. SPSS creates 3 output tables when running the test. The Paired Samples Test- shows the actual test results.

Table1: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	ROEPSBNK	8.7587	15	11.18452	2.88783
	ROEPVTBNK	13.0460	15	2.76746	.71456
Pair 2	ROEPSBNK	8.7587	15	11.18452	2.88783
	ROEFRNBNK	10.9293	15	2.92003	.75395
Pair 3	ROEPVTBNK	13.0460	15	2.76746	.71456
	ROEFRNBNK	10.9293	15	2.92003	.75395

Table2: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ROEPSBNK & ROEPVTBNK	15	.562	.029
Pair 2	ROEPSBNK & ROEFRNBNK	15	.629	.012
Pair 3	ROEPVTBNK & ROEFRNBNK	15	.234	.401

Interpretation

The Paired Samples Statistics output repeats what we examined before we ran the test. The Paired Samples Correlation table adds the information that correlation among return on equity of Public Sector Bank and Private Bank (r = 0.562); Public Sector Bank and Foreign Bank (r = .629) are significantly positively correlated; and the correlation among return on equity of Private Bank and Foreign Bank (r=.234) is positively correlated, but correlations are insignificant.

Table3: Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)	Cohen's D
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper				
Pair 1	ROEPSBNK - ROEPVTBNK	-4.28733	9.89615	2.55518	-9.76764	1.19297	-1.678	14	.116	-.43323
Pair 2	ROEPSBNK - ROEFRNBNK	-2.17067	9.61978	2.48382	-7.49792	3.15659	-.874	14	.397	-.22565

		Paired Differences					t	df	Sig. (2-tailed)	Cohen's D
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper				
Pair 1	ROEPSBNK - ROEPVTBNK	-4.28733	9.89615	2.55518	-9.76764	1.19297	-1.678	14	.116	-.43323
Pair 2	ROEPSBNK - ROEFRNBNK	-2.17067	9.61978	2.48382	-7.49792	3.15659	-.874	14	.397	-.22565
Pair 3	ROEPVTBNK - ROEFRNBNK	2.11667	3.52177	.90932	.16638	4.06696	2.328	14	.035	.60102

Reading from left to right:

- First column: The pair of variables being tested, and the order the subtraction was carried out.
- Mean: The average difference between the two variables.
- Standard deviation: The standard deviation of the difference scores.
- Standard error mean: The standard error (standard deviation divided by the square root of the sample size) used in computing both the test statistic and the upper and lower bounds of the confidence interval.
- t: The test statistic (denoted t) for the paired T test.
- df: The degrees of freedom for this test.
- Sig. (2-tailed): The p-value corresponding to the given test statistic t with degrees of freedom df.

Interpretation

SPSS reports the mean and standard deviation of the difference scores for each pair of variables. The mean is the difference between the sample means. It should be close to zero if the population means are equal.

The mean difference between return on equity of Public Sector Bank and Private Bank score is statistically insignificant at $\alpha = 0.05$ ($t_1(14) = 1.678$). This is because 'Sig. (2-tailed)' or $p > 0.05$.

The 95% confidence interval includes zero: a zero mean difference is well within the range of likely population outcomes.

In a similar vein, the second test indicates that the means for return on equity of public sector bank and Foreign Bank score also *does not* differ statistically significantly, $t_2(14) = .874$. The mean difference between Return on equity of Private Bank and Foreign Bank score is statistically significant at $\alpha = 0.05$[$t_3(14) = 2.328$].

On average, return on equity of Public Sector Bank scores was 4.29 points lower than return on equity of Private Bank scores (95% CI [-9.76764, 1.19297]). Similarly, on average return on equity of Public Sector Bank scores was 2.17 points lower than return on equity of Foreign Bank scores (95% CI [-7.49792, 3.15659]). On average, return on equity of Private Bank scores was 2.12 points higher than return on equity of Foreign Bank scores (95% CI [.16638, 4.06696]).

Effect Size - Cohen's D

Our t-tests show that Return on equity of Public Sector Bank has a lower mean score than the other 2 banks. The next question is: are the differences large or small? One way to answer this is computing an effect size measure. For t-tests, Cohen's D is often used.
The effect sizes thus obtained are
d = -.43323 (pair 1) - small effect;
d = -.22565 (pair 2) - small effect;
d = .60102 (pair 3) - moderate effect
Thus far, we compared the Return on equity of 3 pairs of banks using 3 t-tests. A shortcoming here is that all 3 tests use the same tiny student sample. This increases the risk that at least 1 test is statistically significant just by chance. There are 2 basic solutions for this:
apply a Bonferroni correction in order to adjust the significance level.
run a repeated measures ANOVA on all 3 banks simultaneously.

9. Conclusion

A strong banking sector is important for healthy economy. The failure of the banking sector may have an adverse effect on other sectors of any economy. Performance of the Indian banking sector during last two years was influenced by the slowdown in the domestic as well as global economy due to Corona pandemic. economy. Major profitability indicators, i.e., return on assets (RoA) and return on equity (RoE) dipped marginally. This paper tried to compare the performance of different Indian banks on the basis of ROE. Return on equity for foreign banks was highest in the year 2008 and lowest in the year 2018.It was 16.05% in 2008 and 7.16% in 2018.

On average, return on equity of Public Sector Bank scores lowest, then, scores Foreign Bank and Private Bank scores the highest.

The correlation between return on equity of Public Sector Bank, Private Bank and Foreign Bank scores (taking two at a time) are positive.

Correlation between return on equity of Public Sector Bank with Private Bank and Public Sector Bank with Foreign Bank both are separately significant. But correlation between return on equity of Private Bank and Foreign Bank is insignificant.

The mean difference between return on equity of Public Sector Bank and Private scores are statistically insignificant at 95% level. Similarly, the mean difference between return on equity of Public Sector Bank and Foreign Bank scores are also statistically insignificant at 95% level. But the mean difference between return on investment of Foreign Bank and Private Bank is statistically significant.

Cohen's - D effect size indicates the highest size difference exists among Private Bank and Foreign Bank, then among Public Sector Bank and Private Bank. And the lowest size difference exists among Public Sector Bank and Foreign Bank.

We found a significant difference in the performance of Public sector banks as compared to Private banks & Foreign banks so far as ROE is concerned. There might be several reasons for such difference. One of the reasons could be increasing operating costs, reduced incomes and the increasing volume of NPAs. Effective and better credit risk management is one of the important tools for better management of NPAs. Customer services of banks need to be strengthened to face the emerging challenges in order to improve their performances. Banks, especially public sector banks should focus more on Customer Relationship Management in order to enhance customer satisfaction which in long run able to retain the customers. Indian Public sector banks should have to adopt best practices followed by successful financial institutions operating in India and elsewhere in order to make themselves a tough competitor in global arena.

Bibliography

Bansal, R. (2014). A Comparative analysis of the financial ratio of selected banks in the India for period of 2011-2014. *Research Journal of Finance and Accounting*, 153-167.

Bharathi, N., & Alagesan, M. (2017). FISCAL PERFORMANCE OF COMMERCIAL BANKS IN INDIA-WITH RESPECT TO SELECTED PUBLIC SECTOR BANKS. *Shanlax International Journal of Commerce*, 51-65.

Chaudhary, K., & Sharma, M. (2011). Performance of Indian Public Sector Banks and Private Sector Banks: A Comparative Study. *International Journal of Innovation, Management and Technology*.

Chaudhary, S. (2012). Performance appraisal of Indian banking sector: A comparative study of selected public and private sector banks. *International Journal of Research in Commerce and Management*, 155-164.

Dangwal, R., & Kapoor, R. (2010). Financial performance of Nationalized Banks. *NICE Journal of Business*, 67-79.

Goel, C., & Rekhi, C. B. (2013). A Comparative Study on the Performance of Selected Public Sector and Private Sector Banks in India. *Journal of Business Management & Social Sciences Research*, 46-55.

Karri, H. K., Meghani, K., & Mishra, B. M. (2015). A COMPARATIVE STUDY ON FINANCIAL PERFORMANCE OF PUBLIC SECTOR BANKS IN INDIA: AN ANALYSIS ON CAMEL MODEL. *Arabian Journal of Business and Management Review*, 18-34.

Kaur, G. (2015). Performance Analysis: A Study Of Public Sector &Private Sector Banks In India. *International Journal Of Business Management*, 897-907.

Kavitha, M., & Dhanabhakyam, M. (2012). Financial Performance of Selected Public. *International Journal of Multidisciplinary Research*, 255-269.

Makesh, K. (2008). Financial Performance Analysis of Commercial Banks: A Comparison of Federal Bank, Dhanalakshmi Bank, and SBI. *Professional Bankers*, 34-44.

Nagamani, M., & Abirami, K. (2014). PERFORMANCE OF SELECT PRIVATE SECTOR BANKS-A COMPARATIVE ANALYSIS. *International Journal of Research in Finance & Marketing*, 1-15.

Priya, S. (2014). An Analysis of Profitability Position of Private Sector Banks in India. *Journal of Business and Management Invention*, 45-53.

Ramachandran, & Kavitha. (2009). Profitability of the Indian Scheduled commercial Banks: A case Analysis. In K. Ramachandran. The ICFAI University Press.

Rani, N., & Gaba, D. (2015). Analysis of Profitability and Efficiency Comparison of HDFC and ICICI. *Paripex - Indian journal of research*, 19-21.

Sharma, G., & Sharma, D. (2017). Comparison and Analysis of Profitability of Top Three Indian Private Sector Banks. *International Journal of Engineering Technology Science and Research*, 173-180.

LOOK EAST
Vol. 7, No. 1, 2021, pp. 45-53

The Impact of ‘Arthasastra’ on the Ancient Society

Avijit Mondal*

Abstract

Kautilya was the Prime Minister during the regime of the Mauryan Dynasty and one of the shrewdest ministers of the time. He wrote ‘Arthashastra’ during the 3rd-2nd century B.C. Kautilya’s ‘Arthasastra’ provides an insight into the ancient Indian anthology of political wisdom, theory and the art of statecraft. ‘Arthasasatra’ also guides the wise king on the issue of security, wealth and prestige. The principles enshrined in ‘Arthashastra’ were followed not only in ancient India but are significant in the present scenario also. It is essentially a classic work on administrative theory and practice. To ensure the rightful exercise of power by the king, Kautilya gives elaborate instructions. Kautilya proclaimed that Politics was the supreme Science and supreme Art. Kautilya was a realist than a theorist. He provides a grand strategy for Politics.

Keywords: *Kautilya, Arthashastra, Function of the State, Saptanga theory, Mandala theory, foreign policy*

1. Introduction

Kautilya’s Arthashastra is a very popular text in ancient Indian Sanskrit practice. The study of ancient Indian political thought is considered incomplete without the knowledge of ‘Arthashastra. Not only this, but Kautilya's Arthashastra has also discussed in detail the formation of the Council Ministers, Justice, Principles, Laws, etc. In a word, Arthashastra is a pure mirror of society building. Kautilya made politics a scientific study in ancient India and attempted to test the political ideas on scientific lines with empirical orientation. He adopts

*Assistant Professor, Department of Sanskrit, Rishi Bankim Chandra Evening College, East Kanthalpara, P. O. Naihati, Dist: North 24 Parganas, PIN: 743165, West Bengal
Mobile- 9804689941, E-mail: avijitm402@gmail.com

the most pragmatic and analytical methodology in 'Arthashastra'. Kautilya's 'Arthashastra' is considered the most scientific work on the ancient Indian polity and an encyclopaedia of practical administration.

At the time when Kautilya was living, India consisted of a number of small states which were constantly at war with each other. There was very little peace within the states either. Intrigues and Murders were quite common. It was the time of Alexander's invasion of northwest India and in contrast to the authoritarian rule he established, there was much disunity. Undoubtedly, in the field of Literature, Art and Philosophy there was much sophistication but since the Political Centre in India was weak, there was very little Political Organization. Alexander's invasion might have provided some rethinking. It at least produced one great political thinker, Kautilya, who has not been superseded in the depth of thought and breadth of vision by any subsequent political thinker in India. Kautilya is credited with being the founder of the Arthasastra tradition as distinguished from the Nitisastra tradition. He was the first to make political economy an independent discipline; while playing lip service to the ideal of right, he propounded a theory of Politics which dealt with the immediate practical concerns of the polity. He was known for his exceptional, frank and candid ideas. Through this study, I want to discuss the social, political and economic impact on ancient society.

2. Kautilya : A brief profile

Kautilya, also recognized as Chanakya, is traditionally credited as the author of the text. 'Arthasastra' entails the Science (Sastra) of wealth/ earth/ polity (Artha). In simple ways, Arthasastra' can be explained as 'Science and Art of Politics and Diplomacy'. This treatise is divided into fifteen books dealing with virtually every topic concerned with the running of a State, Taxation, Law, Diplomacy, Military Strategy, Economics, Bureaucracy etc. The book is a Masterwork which includes an array of topics like Statecraft, Politics, Strategy, Selection and training of employees, leadership skills, legal systems, fiscal politics, civil rules, internal and foreign trade etc.

In the field of politics, Kautilya wrote his famous Arthasastra as well as Chankyaniti (5). He was highly intellectual and well-read in the Hindu religious scriptures and works on polity and other allied subjects. Since the book not only discusses political theories but also gives elaborate details of the administrative system, Kautilya had that familiarity with the detailed work in various branches of administration that we would expect from one who held the high office of the prime minister of a great empire.

Kautilya perhaps felt that the main purpose of the king is to see that such an eventuality when people rise in revolt against the king should never arise because anarchy is worse than the highest tyranny. Kautilya even goes to the extent of saying that a diseased king is better than a new king. This position was almost a reversal of the position taken by Manu and Vyasa. Kautilya gives two reasons in support of this contention.

First, while the diseased king is well versed in tradition and is bound by it, whereas, the new king, since there are no traditions to follow, acts without restraints.

Secondly, Kautilya generally preferred kings of high birth because, according to him, people obey high birth more readily and tend to weave in their loyalty to a king who is low born. These arguments involved a strong defence of the dynastic principle.

He adds, "When people are impoverished, they become greedy, when they are greedy, they become disaffected, when disaffected, they voluntarily go to the side of the enemy and destroy their own master." He further added, "Hence, no king should give room to such causes as would bring about impoverishment, greed or disaffection among his people." Although Kautilya was in favour of a strong king, it may be doubted whether he was in favour of an absolute monarchy. Indeed, the bureaucratic apparatus described in Kautilya's Arthasastra very closely resembles the bureaucratic structure we have today. Definition of the State the State represents the efforts of its people to organize their activities, and the expression of their attempts to organise is seen in the formulation and application of regulations or laws which are usually certified in some constitutional form.

In Kautilya's book, the idea of a welfare state is repeated with great force. The state does not consist of the territory but is a much more complex organisation in which the territory, the people and their inter-relationships are indissolubly welded to form the entity which possesses individuality, a character, which marks it off from all other states. According to Kautilya, the king must ensure that people of the four castes and four orders of life keep to their respective paths, respective duties and occupations.

Kautilya classifies the functions of the state (3) basically into four:

i. Protection: The first function of the state is guarding the country against internal as well as external threats. Internally people and their property have to be protected from thieves and dacoits etc and also externally from outside the state there may be threats from invasions that have to be dealt with.

ii. Maintaining the Law: The king and the state, it is expected by the people, will maintain the customs and laws of the land. The king according to Kautilya should settle legal disputes in conformity with the sacred principles and laws in consultation with learned brahmins.

iii. Preserving Social Order: Kautilya saw it as the duty of the king to protect the dharma of the land by which he meant the social order. It is the duty of the king to deliver justice and help keep people of different varnas preserve their professions or in other words help maintain varnadharmashrarma.

iv. Promoting the welfare of the people: The king according to Kautilya should function on the goal that it is in the happiness of his subjects that his happiness lies. The state should control the whole of social life. It should promote religion and spirituality and in so doing regulate the age and conditions under which one might renounce the world. Kautilya advised the state should provide support to the poor, pregnant women, and their children, orphans, the aged, the afflicted and the helpless.

3. Elements of the State

The relationship of the state with other territories is based upon the sovereignty that it exercises directly or more normally through its leader over the territory. The sovereignty originates from the force of expansion of the body politic at the time of the foundation of the state. Kautilya holds the view that sovereignty is possible only with assistance. The city, the Minister, the country, the fort, the treasury, the army and the friends are the elements of sovereignty. Each of these elements must possess distinct qualities. Thus, seven elements of sovereignty constitute the different limbs (angas) of state. This is also known as "Sapta Prakriti (3) Theory of state". They were: 1. The King 2. Amatya 3. Janapada 4. Durga 5. Kosa 6. Danda and 7. Mitra

Kautilya on the King Kautilya's theory of government involved three aspects: the king, the officials and the mechanism of administration. The king, being the most important element in the hierarchy must possess the following qualities: That he must belong to a high family, he must possess valour and be virtuous, truthful and highly enthusiastic and should not be addicted to procrastination, which he must possess a taste of discipline, a sharp intellect and trained in all kinds of arts. He must possess dignity and should be capable of taking remedial measures against danger and also possess foresight and be ready to avail himself of opportunities. Kautilya gave the highest place to the king. The king has to be dynamic in order to ensure that his subjects are likewise dynamic. He clearly states that it is the duty of the kings to maintain the safety and security of their subjects and their property. This is called rakshana or palana. This protection has to be both from natural calamities as well as from anti-social elements. The king is also required to construct dams, rivers and roads, maintain forests and provide help and superintendence to places of pilgrimage. The king must protect agriculturists from molestation and other kinds of oppression, forced labour and oppressive tasks. To ensure the rightful exercise of power by the king, Kautilya gives elaborate instruction on the education and training of princes, which also reminds one of the educations of the Guardian Class in Plato. Thus, the ideal set before the ruler is that of paternalistic rule and the welfare state.

The Amatya, or the Minister Kautilya gives great importance to the Mantri Parishad i.e., the council of Ministers. No ruler, however competent or powerful, can run the state alone. The Amatya refers both to the mantra and the administrative officials. The king appoints ministers to share the burden of administration and render advice to him. In fact, the Arthasastra is more of a treatise on administration than on politics and statecraft. The administrative principles are discussed with such insight as to make us wonder whether there has been any real progress in the science of administration since then. The most important function of the Mantris was to render advice to the king. Kautilya insists that the king should appoint three to four counsellors. He says that a single Mantri would be difficult to control; two might quarrel and conspire against the king and a larger number would affect the secrecy of the council. These three to four mantrins constitute a consultative body. Kautilya prescribes the highest possible qualifications for a mantris in terms of personal characteristics. As regards the quality of the minister, who constitutes an important element of sovereignty, Kautilya says that he must be a native and born of a high family, influential and well trained in all kinds of acts. He must try to remove whatever defects he finds in the king. In case of the king's death, the Minister shall install the heir apparent and then he should set the army against the enemy and when attacked he will take such measures to ward off the dangers.

The third important organ was said to be Janapada, the territory with people settled on it. Their existence is to be understood by implication in the reference to the janapada. As regards the population, Kautilya says that it should be prosperous enough to be able to pay taxes, should be loyal and should habitually follow the orders of the king. Another distinctive feature of the administrative system in the Arthasastra is marked as leaning towards decentralization. There are indications that a janapada is to contain 800 gramas headed by ' The Samaharta'. janapada is to be divided into four divisions for revenue and administrative purposes. It is on the fort that the security of the kingdom depends both in times of war and peace.

Kosa or treasury is portrayed as the most vital element of the state as all its activities necessitate finance. The treasury is accumulated righteously and legitimately. The treasury must be filled with gold, silver, precious stones jewels and gems and should be capable of standing the strain of expenditure during the time of calamities. According to Kautilya without a treasury, it is extremely difficult to maintain the army and keep it loyal.

Danda The next important element of the state according to Kautilya was Danda or the army-Kautilya opines that the army consists of hereditary and hired soldiers constituting the cavalry, infantry, and the chariot riders. He considers kshatriyas to the excellent material for the army as they are good warriors. The basic qualities of the army according to Kautilya are inheritance, loyalty and strength. They should be trained in the fighting of various kinds of battles and skilful in handling various forms of weapons

The last element of Prakrit is the Mitra or the friend. He is the friend of the king, who is always ready to help him in times of war, and natural calamity. In order to emphasize the contrast, Arthashashtra defines an enemy as one who is not born of a royal family and who is greedy, helpless and impotent and such an enemy is easily uprooted.

Kautilya on Mandala Theory (7) - The Mandala theory of Kautilya occupies an important place in the light of the contemporary situation. Kautilya was not only the prime minister of the first historical emperor of India Chandragupta Maurya but was his friend, philosopher and guide.

Five kings exist in front of the Vijigisu. They are: (i) Ari, the enemy. (ii) Mitraprakriti, the friend of Vijigisu, (iii) Arimitra, friend of enemy. (iv) Mitramitra, friend of the friend of Vijigisu. (v) Arimitra-Mitra, a friend of the enemy friend. Behind the Vijigisu exists: (i) Parsanigraha (ii) Akrandas. (iii) Parsanigrahasara (iv) Akrandanasava Far around the 'Vijigisu' exists (i) Madhyama (Intermediate) (ii) Udasina (Neutral). In the above spectrum of 'Mandala', the Vijigisu functions as a sort of balance of power. It is assumed that the two adjacent States are generally natural enemies and consequently two States beyond their neighbours is highly natural ally being common enemies of natural enemies. The neighbouring States turn into enemies. Likewise, States with no common boundaries become friends. In such a situation, the neutral country occupies an important place. The intermediary occupies the second-best position between the neutral country and other power.6 One of the distinctive principles of Kautilya Mandala theory is that whenever an enemy king is in trouble, and his subjects are exploited, oppressed, impoverished and disunited he should be immediately attacked after one proclamation of war. 6 SR Myneni; Political Science There is another significant aspect of the Mandala theory of Kautilya that the victor should follow the policy of goodwill and cooperation towards the conquered enemy and win his confidence.

Kautilya has laid much emphasis on his Mandala theory that the "immediate king who is situated close to the territory of the conquerer is the enemy". There is the need for an alliance of enemy's enemies who could easily be won over to meet the common challenge. The aspect of inter-state relationships finds expression in the foreign policies of constituent states. These relations fall into a global pattern which is susceptible to change and reveals underlying conditions which are worthy of analysis. It is concluded that the unequal growth of nations is directly or indirectly the cause of the great wars of history and is in large measure the result of the uneven distribution of fertility and strategical opportunity upon the face of the globe. States have no permanent enemies but only permanent interests.

Six-Fold Policy (2) In a system of mandala, Kautilya advocated a six-fold policy to interact with the neighbours, which included co-existence, neutrality, alliance, double policy, march and war. To achieve this he advised the king to resort to five tactics: conciliation, gift and bribery, dissention, deceit and pretence, open attack or war.

Alliance and Double Policy Alliance is another instrument of the six-fold policy by which an inferior king or weak king maintains equilibrium in and around his territory. Kautilya says that one should make an alliance with a king who is situated between two powerful kings shall seek protection from the stronger of the two or he may make peace with both of them an equal term. A king may ally with the Madhyama king or the neutral king. Alliance in Kautilyan way seems to speak of a strategic grouping of strategic relations among kings.

4. Conclusion

The primary objective and goal of foreign policy have to be from equilibrium to progress. The success of a foreign policy would very much depend on a combination of the sound council and material resources which would include revenue, army and enterprise. He discusses in detail the policies to be adopted by the king in dealing with a strong, an equal and as weak kingdom. Kautilya is categorical that if the progress of a kingdom is equally attainable through peace or war, then peace is to be preferred thereby saving the state from unnecessary expenditure on men and materials. In any case, before an action is taken, there should be an assessment of the relative strength of one's position in relation to the enemy in terms of such factors as power, time, place, the time for mobilization of troops and the prospective loss of men and material. In these ideas, Kautilya is very creative and original in suggesting that a wise policy is to be preferred if one is based on purely military or financial considerations. A policy based on wisdom can achieve the same, and perhaps even better results than a policy based purely on military or financial considerations. Kautilya's Mandala theory of foreign policies and interstate relationships though cannot be said to be completely applicable in the present context, though one cannot ignore its relevance. His concept stands as a barrier to the idea of integration, both at regional and global levels. But in the present day, Kautilya dominates in regional and international relations. His warfare technique even in the present day helps a lot. He has actually very accurately given his theories. Moreover, even to understand the ancient Indian political thought, it is very important to understand the inter-state relationships and hence kautilya's contribution is immensely important when we look back at the Indian History and how under his guidance India was reunited by the Mauryan Umpire Summary Kautilya's Arthasastra is an important source of knowledge on polity, economy and administration. However, this important document has been forgotten for centuries. Kautilya was a true statesman who bridged the gap between experience and vision. For Kautilya, good governance was paramount. He suggested built-in checks and balances in systems and procedures for the containment of malpractices.

Even in the present situation, if we can imagine a society based on Arthashastra and follow the path of Kautilya, then our way of life and society will change radically. In the end, Arthashastra is an impeccable example of Sanskrit literature and world literature.

References

Altekar A.S. (2016). "State and Government in Ancient India", Motilal Banarasidas, Publishers, (7th Edition).

Bandyopadhyay Manabendu (2002), Kautiliyam Natyashastra, Sanskrit Pustaka Bhander, Kolkata - 6.

Basu Anil Chandra (2007), Kautiliya Arthashastra, Sanskrit Book Deepo, Kolkata - 6.

Bose, Roger. (2003). The First Great Political Realist: Kautilya and his Arthashastra, New Yark: Lexington Books.

Chousalkar, A. (1981). Political Philosophy of Arthashastra Tradition. *The Indian Journal of Political Science*, Vol-42, No-1.

Das Partha Pratim, Dhimohi, The Dacca Students Library, Kol-073

Das Partha Pratim, Saravrddhi (2017). Sanskrit Book Deepo, Kol 006. 2017.

Puri, Sanjeev. (2007). Journal of Indian Council of Philosophical Research, ICPR, New Delhi.

Rich, Bruce. (2008). To Uphood the world: The message of Ashoka & Kautilya for 21st Century, Vikiny, New Delhi.

LOOK EAST
Vol. 7, No. 1, 2021, pp. 54- 68

Growth and Trend of Unified Payment Interface in India: A tool to Promote Financial Inclusion in the Current Era

Priyajit Ray*

Abstract

The Unified Payment Interface (UPI) service is evolving and growing in the modern scenario. The advancement in technological revolution paves the way for such services and the banking industry is also innovating with the changing needs. Based on the importance of UPI system for providing financial inclusion in our country, the researcher chooses to conduct the study such that to understand the trend and growth of the banks which are providing UPI services and the transactions value of such services. Line chart along with linear regression model has been used in the study to test the hypothesis of the study such that its objectives can be fulfilled. Based on the results ascertained, findings along with suitable logical conclusions of the study were provided by the researcher. Finally, several suggestions were put forwarded by the researcher such that the UPI system can help to enhance financial inclusion in our economy.

Keywords: *Financial Inclusion, Growth, Linear Regression, Trend, Unified Payment Interface.*

1. Introduction

The digital payment system has been a revolution in the recent era of technological advancement. Over the years, there have been several innovative changes that took place in the field of transferring and flow of funds in our economy. The advancement in technological innovation and the development

* *Priyajit Ray, Research Scholar (JRF), Department of Commerce, University of Calcutta, Kolkata, Email Id: raypriyajit11@gmail.com, Contact No. +918670353314*

of internet connection paved the way for digital payment services in our country. The proliferation of smartphones in the modern era is an important tool behind the rise and growth of the Unified Payment Interface (UPI) in our Nation. The National Payment Corporation of India (NPCI) established UPI in our country to facilitate digital transactions with the motive to achieve a cashless and paperless economy. Ever since the introduction of the UPI system, there has been no looking back for such payment services and it gave a new redefined way of transacting digitally with the help of technological and innovative tools. The trend of UPI in the modern era of the industrial revolution led the banks to operate digitally and thereby more number of banks are opting for digital banking and focusing mainly on it rather than the traditional mode of the banking system. The UPI system uses a virtual payment address to transfer funds that too in a modernized and price-effective manner such that every individual can have access to such mode of digital payment services. Moreover, the UPI system is the foremost wonderful and revamped breakthrough which has the potential to contribute more towards the achievement of the digital economy. The UPI services have the opportunity to redefine the payment system but the major problem with our country lies in the rural and backward areas, where there is no penetration of proper internet connection and technological innovation is also at its backdrop which blocks the way for UPI system to be judiciously utilized by every individual. Such a problem in a vast country like India roadblocks the way for financial inclusion in our economy which is an area for concern. The government has introduced several policies and measures for financial inclusion in our economy but effective financial inclusion has always been a problem in our country. Delivering financial products and services to each and every individual at their desired need and time ensures the effectiveness of financial inclusion, which brings financial stability along with economic growth and development in our country. The growth of UPI in the recent scenario is an effective tool to promote and provide effective financial inclusion in our country and therefore the obstacles and hurdles laid with the UPI mode of payment system should be identified and resolved for the sustainable development of our economy.

2. Literature Review

Several existing pieces of literature are reviewed in the concerned area by the researcher for the identification of the research gap of the study:

Gochhwal, R. (2017) studied the evolution of payments systems in our country and examined that the Unified Payment Interface is an important payment system as compared to previous payment systems in terms of ease of use, cost, security and also issues regarding financial settlement that has witnessed good user adoption in our economy.

Thomas, R., & Chatterjee, A. (2017) identified that the Unified Payment Interface tool has some challenges which are difficult to sideline but it has distinct compatible features that can make financial transactions affordable and easy for its customers. The researchers also told that the UPI system has a positive prospect of increasing financial inclusion in our country.

Gupta, S., & Kumar, D. (2020) conducted a primary study based on the perception of Unified Payment Interface in our country and was found that education is the most important influencer for the adoption of the UPI system and no important variance supported the demographic factors like age, gender, and annual financial gain of the patients or rather any profession.

Mahesh, A., & Bhat, G. (2021) in their study identified that the Unified Payment Interface (UPI) mode of payment system is a cost-effective mechanism which enables payment facilities for all with the help of technological innovation and an increase in smartphone users. They also found that the rise of digital payment systems has increased significantly which is especially in the retail payment sector on the UPI platform.

Rastogi et al (2021) conducted a primary survey and found that the Unified Payment Interface is impacting the financial literacy of our country which is further having a positive impact on the financial inclusion and that in turn is significantly generating economic growth and development in our Nation. The researchers also pointed out that financial stability mediates the significant association of financial literacy to financial inclusion and trust mediates the significant association between financial inclusion to economic development.

3. Research Gap

The researcher has gone through several extensive reviews of literature in the definite area and has found that no such research work based on the growth and importance of Unified Payment Interface and its services has been undertaken yet to gain in-depth knowledge and its view regarding how the UPI system can be an effective tool to promote and provide financial inclusion in our country. The researcher also identified that since the UPI services are growing and evolving, it has the opportunity to do much beyond its basic services if promoted. Considering there is a major research gap in the concerned area and looking at the importance of the UPI system in the recent scenario having a huge social significance, the researcher chooses to fill up the research gap through its below-identified research objectives and testable hypothesis of the study, by conducting empirical and explorative research work.

4. Objectives of the Study

Based on the research gap observed by the researcher, the following research objectives have been identified by the researcher in the study:

1. To assess the growth and trend in financial inclusion through the Unified Payment Interface (UPI) in India.
2. To study the overview of the Unified Payment Interface (UPI) system in our country.

5. Research Questions

The following questions were raised by the researcher based on the objectives and importance of the study:

1. Does there a trend in financial inclusion through the Unified Payment Interface (UPI) in India?
2. Does the Unified Payment Interface (UPI) system in India providing economic growth and development in our country?

6. Hypothesis of the Study

The following research hypothesis has been formulated by the researcher to fulfil the above research objectives of the study:

1. H_{01}: There is no significant trend in the number of banks providing Unified Payment Interface (UPI) services.
   H_{11}: There is a significant trend in the number of banks providing Unified Payment Interface (UPI) services.
2. H_{02}: There is no significant trend in the value of transactions of Unified Payment Interface (UPI) services.
   H_{12}: There is a significant trend in the value of transactions of Unified Payment Interface (UPI) services.

7. Research Methodology

The current research study is empirical, analytical and explorative in nature which is relied completely on the collection and then analysis of secondary sources of gathered information and data. The research work is completely focused on the trend and growth of the Unified Payment Interface (UPI) in our country and thus how that can be an effective tool to promote and solve the problem of financial inclusion in our Nation. Hence, data relating to UPI has been studied and collected from the Website of the National Payments Corporation of India (NPCI) to understand the growth and trend of UPI such that it can solve the problem of financial exclusion. The data has been collected for the last fifteen months ranging from April, 2020 to June, 2021 which was completely based on the rationale of the researcher such that the period will be enough to judge the growth and trend of the UPI system. Various relatable research articles, journals, published information and news reports have also been referred for the analytical and explorative part of the study such that the objectives of the research work can be fulfilled.

After the collection of data, it has been presented and analyzed with the help of a line graph such that the trend and growth of the banks providing UPI services and also the trend and growth of the value of UPI transactions can be understood. Linear regression models have also been applied in the study to see if there is a trend in the data set with the increase in time and also to test the formulated hypothesis of the study. In the simple linear regression models, the dependent variable taken here is the number of banks providing UPI services and the value of UPI transactions where the independent variable is time, represented as the number of increases in months. Considering UPI services as the source of finance to many individuals which involve the inflow of funds digitally, it was considered as one of the sole providers of financial inclusion here in the study. The data has been presented and analyzed with the help of Microsoft Excel and IBM SPSS software here in the study. Findings and logical conclusion has been drawn by the researcher based on the results of the study after the presentation and extensive analysis of data. Finally, several suggestions have also been put forward by the researcher so that the UPI system can perform well along with growing which will ultimately help to evade our Nation's financial exclusion that can take a path towards growth and development.

8. Data Presentation and Analysis

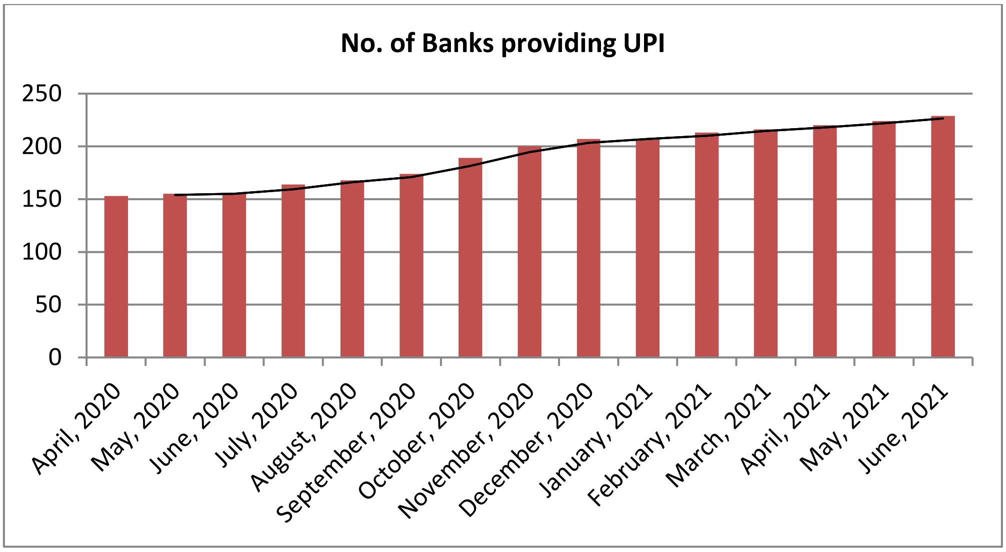
To fulfil the research objectives of the study based on the well-narrated research methodology and its formulated hypothesis, data regarding Unified Payment Interface (UPI) services for the last fifteen months are presented and analyzed below:

Table 1: Monthly Number of Banks providing Unified Payment Interface (UPI) Services

Months	No. of Banks providing UPI
April, 2020	153
May, 2020	155
June, 2020	155
July, 2020	164
Aug, 2020	168
Sept, 2020	174
Oct, 2020	189
Nov, 2020	200
Dec, 2020	207
Jan, 2021	207
Feb, 2021	213
Mar, 2021	216
April, 2021	220
May, 2021	224
June, 2021	229

Source: Retrieved from https://www.npci.org.in/what-we-do/upi/product-statistics

Figure 1: Growth of Number of Banks providing Unified Payment Interface (UPI) Services



Source: Researchers Presentation using MS Excel

Figure 1 above clearly shows that there is a rising trend in the number of banks that provides Unified Payment Interface (UPI) Services in our country. The figure depicts growth in the number of banks each and every month except in the month of January, 2021 when there is neither rise nor fall in the number of banks that provides UPI based services in our economy. Overall the trend shows that the number of banks that provides such services will increase in future which will indeed resolve the problem of financial inclusion a bit in a vast country like India.

To analyze the trend in a number of banks providing Unified Payment Interface (UPI) Services in our country, the following linear regression model has been developed and its equation is given below:

$Y = \beta 0 + \beta 1t + e$

Where, Y is the Number of Banks providing Unified Payment Interface (UPI) Services;
$\beta 0$ and $\beta 1$ are the parameters indicating intercept and coefficient;
t is the Time Factor; and
e is the error term in the model.

Table 2: Trend Analysis of Number of Banks providing Unified Payment Interface (UPI) services through Linear Regression Model

R	R Square	Durbin-Watson	F	Sig.	Unstandardized Coefficient (B)	VIF
.805	.966	0.630	371.385	.000	143.086	1.000

a Predictors: (Constant), Time
b Dependent Variable: Number of Banks providing UPI Services;
Source: Researchers Computation using SPSS

From the above Table 2, it can be observed that the value of R is 0.805, which signifies the correlation coefficient between the dependent variable and its explanatory variable that is significant at both 1% and 5% levels of significance which indicates a significant and linear association between a number of banks providing Unified Payment Interface (UPI) Services along with its time factor i.e. the increase in a month. Here, the value of R square is 0.966 which depicts that more than 96% of the variation in the dependent variable has been explained by its independent variable. The value of F here is 371.385, which is statistically significant both at a 1% and 5% level of significance, that which measures the ratio between the mean square of regression and its residual which shows that the model is reliable and good fit. The unstandardized coefficient beta value of 143.086 according to the table signifies that there is a positive trend in the number of banks providing Unified Payment Interface (UPI) services, which is also significant at both 1% and 5% levels of significance that can be observed from its P-value at 0.000.

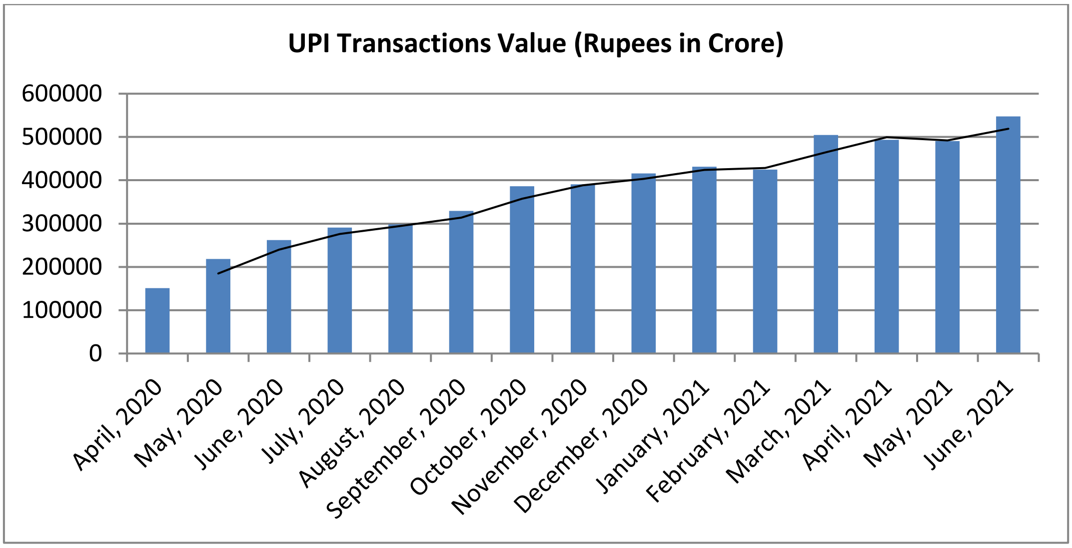
Table 3: Monthly Unified Payment Interface (UPI) Transactions Value

Months	**UPI Transactions Value (Rupees in Crore)**
April, 2020	151140.66
May, 2020	218391.60
June, 2020	261835.00
July, 2020	290537.86
Aug, 2020	298307.61
Sept, 2020	329027.66
Oct, 2020	386106.74
Nov, 2020	390999.15
Dec, 2020	416176.21

Jan, 2021	431181.89
Feb, 2021	425062.76
Mar, 2021	504886.44
April, 2021	493663.68
May, 2021	490638.65
June, 2021	547373.17

Source: Retrieved from https://www.npci.org.in/what-we-do/upi/product-statistics

Figure 2: Growth of Unified Payment Interface (UPI) Transactions Value



Source: Researchers Presentation using MS Excel

From Figure 2 above, it can be clearly observed that there is a rising trend in the transactions value of the overall Unified Payment Interface (UPI) Services in our economy. There is an overall growth in the value of transactions for the UPI services provided except for the month of February, 2021 and for May, 2021 where there is a fall in the value of UPI transactions compared to the previous month. The overall trend and growth in the transactions value of UPI depict that the value will rise in future which can be an important source of bringing financial stability to our economy that can be a definite tool for improving the level of financial inclusion in our economy in the current scenario.

To analyze the trend in the value of transactions of Unified Payment Interface (UPI) Services in our economy, the following linear regression model has been created and its equation is given below:

$Y = \beta 0 + \beta 1t + e$

Where, Y is the Value of Transactions of Unified Payment Interface (UPI) Services;
β0 and β1 are the parameters indicating intercept and coefficient;
t is the Time Factor; and
e is the error term in the model.

Table 4: Trend Analysis of Unified Payment Interface (UPI) Transactions value through Linear Regression Model

R	R Square	Durbin-Watson	F	Sig.	Unstandardized Coefficient (B)	VIF
.980	.960	1.491	174594.578	.000	143.086	1.000

a Predictors: (Constant), Time
b Dependent Variable: UPI Transactions Value
Source: Researchers Computation using SPSS

The Table 4 given above shows that the value of R, which measures the correlation coefficient between the dependent variable and its independent variable is 0.980, which is significant at both 1% and 5% levels of significance. It indicates a significant and linear association between the values of transactions of Unified Payment Interface (UPI) services along with its time variable which is the increase in the number of months. The R square value at 0.960 shows that 96% of the variation in the dependent variable i.e. the UPI transactions value has been explained by the explanatory variable. The table value of F at 174594.578 measures the ratio between the mean square of regression and its residual that is statistically significant both at a 1% and 5% level of significance, which shows that the model is a reliable and good fit. The unstandardized coefficient beta value of the table at 143.086 justifies that there is a positive trend in the value of transactions of Unified Payment Interface (UPI) services, which is also significant at both 1% and 5% level of significance which can be observed from the table P value at 0.000.

9. Findings and Conclusion

There emerges a statically significant result of the formulated testable hypothesis applied in the study based on the extensive presentation and analysis done in the study such that how the Unified Payment Interface (UPI) services is growing and rising in our economy and that is concluded below as follows:

- H_{01} is rejected at 1% level of significance which signifies that there exists a significant trend in number of banks providing Unified Payment Interface (UPI) services.
- H_{02} is also rejected at 1% level of significance which shows that there exists a significant trend in the value of transactions of Unified Payment Interface (UPI) services.

The Unified Payment Interface (UPI) services are the ones which provide valuable services in need and it is rising continuously in our economy. The results of the overall study drag forward to the conclusion that the number of banks providing UPI services and the value of transactions of such services is growing day by day and its trend also justifies that it has a wonderful prospect for our Indian economy in future which can also resolve the problem of full financial inclusion in our country. Apart from a few months, where there is a fall in the trend of UPI services, there has been an overall growth of such services in our country as per the study. The linear regression model also shows that the number of banks providing UPI services and the transactions value of the UPI services, both are in a positive and rising trend with every passing month which justifies that with time; the UPI system will rise and grow for the better benefit of our economy.

Such that there is a direct relationship between the growth and development of our country with financial inclusion, the Unified Payment Interface (UPI) can play a crucial role to bring financial certainty and stability to the economy, especially while providing adequate financial services to the individuals those who are in need. The UPI payment service is a very important medium through which financial transactions take place without visiting the bank physically, and all credit goes to the advancement in technological development in the recent scenario without which such services wouldn't have taken place. In a vast country like India, there is always a tough competition from every different sector but with the growth of UPI services in the recent scenario, it seems that it can promote financial inclusion to the next level such that it can resolve the problem of 100% financial inclusion which have always been a distinct dream in our Nation. The UPI services are evolving and growing over the years but it takes no time for any effective system to become a disaster overnight therefore there should be effective governance for such services and the policymakers should also look after the system from time to time for the overall growth of the sector and thus the development of our economy.

Suggestions

There have been a lot of efforts on the part of the government in the past to provide financial inclusion effectively to each and every Individual of our country but the desired outcome hasn't come out yet and therefore the Unified Payment Interface system can be an effective tool to fulfil the gap of desired financial inclusion in our economy. Like every other sector, the UPI system and its services also have some problems to be effectively utilized in a vast country like India. Reaching UPI services to each and every part of our economy and every individual is a huge task and moreover, such a system requires digital technology with advancements in the internet system, which is a major problem, especially for the rural sectors of our country. Therefore, looking at the importance of the UPI system and such services having few problems, the researcher has suggested several suggestions such that the UPI system can operate effectively and efficiently for the overall development of our economy:

- Promotion of Unified Payment Interface services is needed in a vast country like India, especially in the downgraded rural areas of our country where the majority of the individuals are still not aware of the benefits of UPI services that they provide.
- Technological innovation and development along with proper internet connection should be there in every corner of our economy such that UPI services can be availed by every section of our country and there is no digital divide in our country.
- The Reserve Bank of India along with the policymakers should keep an eye on the UPI system of our country such that there is no disparity among the system, and for that, an effective monitoring framework should be there to make it effective.
- There is a fear of security issues among the customers while using UPI based services and therefore the system should support its customers with end to end digital encryption such that they can feel a seamless experience that will give them security and reliability for UPI services.
- The banks that are providing UPI based services should mainly focus on the credit deficiency and uncaptured areas of our country which will help to

reduce the problem of financial exclusion and thereby will help our Nation to evolve and develop.

Limitations of the Study and Future Research Scope

The current study is conducted relying on secondary sources of data and information and therefore future researchers can conduct research work based on primary sources of data collected from the respondents to judge the effectiveness of Unified Payment Interface services for the consumers. A small amount of data has been collected and analyzed in the study with the help of using basic statistical tools. Future researchers can conduct studies in the concerned area by applying more than basic sophisticated statistical tools with the help of a large number of data sets such that more relevant and accurate results can be ascertained which will help to enhance financial inclusion in our economy. Future researchers can also conduct more extensive research work by taking different modes of digital mode of payment systems such that to judge how they can be effective in providing financial inclusion in our economy. For a more clear and lucid understanding of the UPI system, studies concerning cross country analysis or particular geographical based analysis can also be conducted in future.

References

Chaterji, D., & Thomas, R. (2017). Unified Payment Interface (Upi) a Catalyst Tool Supporting Digitalization–Utility, Prospects &Amp; Issues. *International Journal of Innovative Research and Advanced Studies (IJIRAS)*, *4*(2).

Bhardwaj, S., & Kaushik, M. (2018). Unified Payment Interface—A Way Ahead for Demonetization in India. In *Smart Computing and Informatics* (pp. 273-280). Springer, Singapore.

Bhargava et al (2021). Expansion of Unified Payment Interface. *Annals of the Romanian Society for Cell Biology*, *25*(6), 12491-12499.

Gochhwal, R. (2017). Unified Payment Interface—An Advancement in Payment Systems. *American Journal of Industrial and Business Management*, *7*(10), 1174-1191.

Gupta, S., & Kumar, D. (2020). UPI-An Innovative Step For Making Digital Payment Effective And Consumer Perception On Unified Payment Interface. *The International Journal of analytical and experimental modal analysis*.

Kumar, M. P. S., & Sudheer, M. C. B. A Study on Growth of Upi (Unified Payment Interface) in Digital Empowerment. Financial Management & Marketing Management, 323.

Mahesh, A., & Bhat, G. (2021). Digital Payment Service in India-A Case Study of Unified Payment Interface. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, *5*(1), 256-265.

Neema, K., & Neema, A. (2016). UPI (Unified Payment Interface)–A new technique of Digital Payment: An Explorative study.

Rastogi et al (2021). Unified Payment Interface (UPI): A Digital Innovation and Its Impact on Financial Inclusion and Economic Development. *Accounting and Finance*, *9*(3), 518-530.

Sharma, A. (2016). Unified Payments Interface: The Recent Indian Financial Innovation Demystified. *Apeejay Journal of Management and Technology*, *11*(2), 21-33.

Sumathy, M., & Vipin, K. P. (2017). Digital payment systems: Perception and concerns among urban consumers. *IJAR*, *3*(6), 1118-1122.

Thomas, R., & Chatterjee, A. (2017). Unified payment interface (UPI): a catalyst tool supporting digitalization–utility, prospects & issues. *International Journal of Innovative Research and Advanced Studies*, *4*(2), 192-195.

- *https://en.m.wikipedia.org/wiki/Unified_Payments_Interface*
- *https://m.economictimes.com/topic/UPI*
- *https://theprint.in/opinion/upis-rapid-growth-proves-india-can-build-world-class-payments-infrastructure-from-scratch/355480/*
- *https://timesofindia.indiatimes.com/topic/Unified-Payment-Interface*
- *https://www.accion.org/upi-changing-financial-inclusion-india*
- *https://www.bhimupi.org.in/who-we-are*
- *https://www.financialexpress.com/industry/upi-for-you-and-i-the-future-of-payments-is-digital/1839427/*
- *https://www.insightsonindia.com/2016/08/24/6-unified-payments-interface-upi-advantages-cashless-transaction-methods-upi-significant-indian-economy/*
- *https://www.livemint.com/money/personal-finance/upi-set-to-be-more-convenient-facilitate-more-interoperability-11596987965418.html*
- *https://www.npci.org.in/*

LOOK EAST
Vol. 7, No. 1, 2021, pp. 69-80

An Insight into Accounting and Auditing Standards in India

Raju Mondal*

Abstract

The Business organizations are preparing their financial statement to disclose their financial position. Financial discloser is valid when the financial statements are audited by an auditor, there is a separation between the ownership and management who prepare the financial statements, now the problem is whether the financial statement preparation procedure is sufficient to disclose the whole aspect of the firm and the auditor technic and procedure to the audit of the financial statement are qualitative to all stakeholders. Over the last decade, the users' expectations from financial statements and audit reports thereon have undergone a sea-change. From a time when concise financial statements and crisp audit reports were favoured, the trend now is clearly towards more disclosures and transparency in financial statements and audit reports with more details. An attempt has been in this article to discuss the evolution of accounting as well as auditing.

Keywords: *Accounting, Auditing & Financial statement*

1.1 Introduction

Financial accounting and reporting remain the core tool of entities for communication with its stakeholders. It is the semantics of such communication. Accounting standards are the Grammar of such language used by entities in such communication. The separation of ownership and management in the growing businesses and modern-day complexities added

*Lt.Dr.RajuMondal, Assistant Professor in Commerce, Fakir Chand College, E-mail-rajumondal8583@gmail.com, Contact No. +919735677377

the importance of timely and accurate communications. The grammar (i.e., Accounting Standards) blends uniformity in reporting and facilitation of unambiguous communication with a variety of stakeholders including but not limited to owners/shareholders, employees, regulators, trade/business relations, revenue authorities etc.

Accounting and Auditing in India

1949: The Chartered Accountants Act, 1949 passed on 1st May. The term Chartered Accountant came to be used in place of Indian Registered Accountants. The Chartered Accountants Act was brought into effect on 1st July and The Institute of Chartered Accountants of India (ICAI) was born on 1st July 1949. 4.2 The ICAI, being the premier standard-setting body in India, constituted Accounting Standard Board (the 'ASB') on April 21, 1977, with the objective to formulate Accounting Standards to enable the Council of ICAI to establish a sound and robust financial reporting standards framework in India. The ASB takes into consideration the Accounting Standards at the International Level (IFRS/IAS) and sets National Standards based on those so that National Standards are broadly aligned to Global Accounting Principles. ASB is represented not merely by members of ICAI but also by representatives from the Government including Revenue Departments, RBI, IRDA, MCA, and Chambers of Commerce. From 1977 to 1988, ICAI notified 11 Accounting Standards ('AS'), made in a consultative manner by ASB, but these notified AS lacked statutory recognition. The statutory recognition and legal force were provided to Accounting Standards by the amendment made in 1999 to the Companies Act, 1956. New sub-sections (3A), (3B) and (3C) were inserted in section 211, which required that every balance sheet and profit & loss account of the Company complied with the accounting standards, prescribed by the Central Government in consultation with the National Advisory Committee on Accounting Standards (NACAS). The accrual method of accounting in India also gradually evolved with the growth and evolvement of the 'Company' form of business organisation and mandatory requirements prescribed under the law [Section 209(3) of 1956 Act] for the Companies to follow 'accrual' basis and according to double-entry system of accounting.

1.2 Accounting Standards

Accounting Standards are "written documents, policies, procedures issued by expert accounting body or government or other regulatory body covering the aspects of recognition, measurement, treatment, presentation and disclosure of accounting transactions in the financial statement".

Objective of Accounting Standards:

- Standardize the diverse accounting policies.
- To eliminate non-comparability of financial statements to the possible extent.
- Add to the reliability of the financial statements.
- Help understand Accounting Treatment in financial statements.

Advantages of Accounting Standards:

- Reduce or eliminate confusing variations in the accounting treatments used to prepare the financial statements.
- Disclosures beyond that required by law.
- Facilitating comparison of financial statements across different companies.
- Uniformity of accounting treatment of identical transactions

Procedure for issuing Accounting Standards by ICAI:

The following procedure is adopted for formulating the accounting standards:

- ASB constitutes a Study Group to formulate a preliminary draft.
- ASB considers the preliminary draft and issues the Exposure draft (ED) for public comments. ED is also specifically sent for comments to specified bodies such as industry associations, regulators, stock exchanges and others.
- ASB considers comments received on ED and finalizes the draft AS for consideration of the Council.
- Draft approved by council is recommended to NACAS.
- NACAS recommends the Standard to the Government of India (MCA) after its review and modifications, if any, in consultation with ICAI.
- Government of India (MCA) notifies the AS of acceptance of recommendations made by NACAS.

1.3 Globalisation of Accounting Standards

The globalisation of economies and the evolution of a highly interconnected world has had far-reaching changes impact on the economy and the 'accounting' world also cannot remain unaffected therefrom. Since the beginning 21st century, there was renewed demand for global harmonisation of accounting standards and to converge or adopt a single set of high-quality standards that require transparent and comparable information in the financial statements. There is also a significant transformation in the fundamental accounting principles and concepts of fair value measurements, prominence to fair and faithful presentation, new components in financial statements and so on gaining acceptance.

Further, the direction of accounting standard-setting has shifted towards 'Principles' based standards rather than 'Prescriptive Rule' based ones. There are two other major developments also impacting standard-setting viz., the unprecedented global financial crisis starting in 2007-08 and birth of integrated reporting framework in 2010 having core objective of more effective communication with stakeholders. Policy makers and Regulators are following the developments in standard-setting area with keen interest. Therefore, accounting standard-setting role has assumed greater responsibility and accountability.

International Financial Reporting Standards (IFRS) area set of high quality principle-based standards and has become the global financial reporting language with more than hundred countries accepting or requiring IFRS based financial reporting. The U.S. Securities and Exchange Commission has also allowed Foreign Private Issuers to file financials statements prepared under IFRS without reconciliation to the US GAAP.

It is the primary duty of any company irrespective of Indian company or foreign company to prepare financial statements at the end of accounting period. While preparing financial statements some accounting standards needs to be followed that is laid down by Accounting Standard Board of the respective country. Subsidiary/Joint Venture/Associate of a company located in another country need to prepare its financial statements according to accounting standards of the country where it is located, which leads to variation in profits. This variation in profits is due to difference in accounting standards, which differs from country to country. In order to remove these variation/difference in profits, International Accounting Standard Board introduced International

Financial Reporting Standards called as IFRS. IFRS are the common accounting standards followed by member countries of IASB in preparing their financial statements. IFRS helps in arriving at similar profits regardless of the location of an entity. Before any new IFRS are issued oramendments are made in IFRS, IASB issues exposuredrafts, discussion papers and conducts out-reach events.

Advantages of convergence to IFRS

- Easy Comparison: Companies always would like to compare their performance with other companies' performance. IFRS make this work easier because most companies are / will follow same accounting standards in preparing their financial statements.
- One Accounting language company-wide: Company with subsidiaries in foreign countries can use IFRS as common business language in preparing its financial statements as most of the countries are adopting / converging with IFRS.
- IFRS facilitates Cross border movement of capital and cross border acquisitions, enables partnerships & alliancewith foreign entities.
- Availability of professionals internationally: IFRS enhances the mobility of professionals internationally.
- IFRS provides more compatibility: IFRS provide more compatibility among sectors, industry, & companies. This would improve relationship with investors, suppliers, customers and other stakeholders across the globe.
- Increased investment opportunities: Common accounting standards help investors to understand available investment opportunities better as opposed to financial statements prepared under different set of national accounting standards.
- Lower cost of capital: Greater willingness on the part of investors to invest across borders will enable entities to have access to global capital markets which lowers the cost of capital.
- Higher economic growth: Increased investment opportunities lead to attraction of more investments which result in higher economic growth.
- Better quality of financial reporting: Convergence will place better quality of financial reporting due to consistent application of accounting principles and reliability of financial statements.

Indian Accounting Standards (Ind AS)

The key features of Ind-AS which are principlebased IFRS converged standards include fair value measurement, use of time value of money and reliance on robust disclosures. These Standards are applicable for separate as well as consolidated financial statements.The implementation of Ind-AS has led to enhanced qualitative reporting due to additional information requirements and more transparency. This will help the investors to better understand the risks and rewards associated with the investment in an entity and, therefore, it would make investment decisions easier.

Ind AS also require greater use of judgements and estimates. Therefore, greater disclosure requirementsare prescribed under these Standards.

- For estimates: focus on the most difficult, subjective and complex estimates including details of how the estimate was derived, key assumptions involved, the process for reviewing and a sensitivity analysis.
- For judgements: provide sufficient background information on the judgement, explain how the judgementwas made and the conclusion reached.

The way forward

Changes in accountancy due to change in Technology Globalization of national economies and their interdependence had been strengthened by the internet, which brings people living across the globe together in no time. This had an impact on the working of the different professions and the profession of accounting has not been left unaffected by this global revolution of networking. New technologies spawn new applications and possibilities, which in turn inspire changes to accounting methods and methodologies. The advent of cloud-enabled computing has brought improvements to mobility and connectivity for accountants. As a result, one is able to work with clients across the globe from the comfort of one's home, remotely access one's data from a variety of devices regardless of one's location or the time, perform advanced computations on the fly and retrieve real-time analytics. Technological changes to accounting have automated many of the inputs and calculations that accountants once had to perform manually. This allows one to play a more analytical and consultative role in one's interactions with clients. Of course, these advances also require one to remain flexible, adaptable and perpetually learning in order to keep up with the rapid pace. The evolving Block Chain technology and Artificial Intelligence will also impact the way accounting is done, in times to come. These are interesting times in the Accounting arena.

India has come a long way through evolving the accounting rules towards better governance and globalization of its rapidly growing economy. The couple of years of experience by several hundred Indian companies ushering in IFRS converged accounting, to the say the least, is encouraging. The existing Standards for SME/SMCs are also being upgraded to make them compatible with Ind AS except for the complexities of Fair Value, time value of money, etc. and this could be next era of big changes in Indian context.

Auditing in India

2.1 Origin of Audit

The word audit comes from the word "Audire"(means to hear). In general, it is a synonym to control, check, inspect, and revise. In early days an auditor used to listen to the accounts read over by an accountant in order to check them. Auditing is as old as accounting. It was in use in all ancient countries such as Mesopotamia, Greece, Egypt, Rome, U.K. and India. The Vedas contain reference to accounts and auditing. Arthasashthra by Kautilya also detailed rules for accounting and auditing of public finances.

In general, it is a synonym to control, check, inspect, and revise. Auditing existed primarily as a method to maintain governmental accountancy, and record-keeping was its mainstay. It wasn't until the advent of the Industrial Revolution, from 1750 to 1850, that auditing began its evolution into a field of financial accountability. Checking clerks were appointed in those days to check the public accounts and to find out whether the receipts and payments are properly recorded by the person responsible.

As trade and commerce grew extensively globally, the involvement of public money therein also increased manifold. This in turn created a demand from the investors to have the accounts of the business ventures examined by a person independent of the owners and management of the business to ensure that they were correct and reliable. Such a demand laid down the foundation for the profession of auditing.

Over the years, the extent of reliance placed by the public on the auditors has increased so much with time that it is, unreasonably, felt by the public that nothing can go wrong with an organisation which has been audited. Though the fact that an audit has been carried out is not a guarantee as to the future viability of an enterprise, it is extremely important that the auditors carry out their assignments with utmost professional care and sincerity, to uphold the faith posed by the public in them.

Over the years, auditing has undergone some critical developments. A change in audit approach from "verifying transaction in the books" to "relying on system" also evolved due to the increase in the number of transactions which resulted from the continued growth in size and complexity of companies where it was unlikely for auditors to play the role of verifying transactions. As a result, auditors started placing much higher reliance on companies' internal controls in their audit procedures. Furthermore, auditors were required to ascertain and document the accounting system with particular consideration to information flows and identification of internal controls. When internal control of the company was effective, auditors reduced the level of detailed testing.

There was also a readjustment in auditors' approaches where the assessment of internal control systems was found to be an expensive process and so auditors began to cut back their systems work and make greater use of analytical procedures. An extension of this was the development during the mid-1980s of Risk- Based Auditing (RBA). RBA is an audit approach where an auditor will focus on those areas which are more likely to contain errors. To adopt the use of RBA, auditors are required to gain a thorough understanding of their audit clients in term of the organisation, key personnel, policies, and their industries. The use of RBA places strong emphasis on examining audit evidence derived from a wide variety of sources that is both internal and external information for the audit client. This period also involved Introduction of Computer Assisted Audit Techniques (CAATs) that facilitated data extraction, sorting, and analysis procedures.

2.2 Advent of computerization and Auditing

Before the advent of the computer, bookkeeping was done by actual bookkeepers. The bookkeeper would record every financial transaction the company made in a journal, the then book of primary entry. The transaction didn't just need to be entered into the journal but also copied to other ledgers, for example, the company's general ledger.

Prior to the advent of computers, to ensure accounts were in balance, a 'Trial Balance' was used. If this internal document revealed that the accounts were not balanced then the bookkeeper had to undertake the arduous task of going through each transaction, check the castings, carry-forwards, etc. until the root cause of the disparity was located and rectified so that the accounts again balanced.

The advent of computerisation dramatically changed the manner in which the business was conducted. It had significant effect on organization control, flow of document information processing and so on. Auditing in a Computerised environment however did not change the fundamental nature of auditing, though it caused substantial change in the method of evidence collection and evaluation. This also required auditors to gain knowledge about computer environment (hardware, software, etc.) and keep pace with rapidly changing technology, even to the extent of using sophisticated Audit software.

Auditors generally followed an "auditing around the computer" approach by comparing the machine's input with its output (parallel processing), just as he/she had compared the voucher files with the ledger books in the early 1900s. With the introduction of computers, conventional accounting systems and methods using papers, pens, etc. underwent drastic changes, therefore exerting a great impact on internal control and audit trails in following audit procedures. Auditors could no longer depend on visible records but only check the existence of adequate internal control system to ensure accuracy of operations; the number of records which could be read only when processed by computers increased while intermediary and legible records which existed in conventional manual accounting processes decreased and there were many cases in which audit trails were not available. Therefore, audit procedures had to be revised to cope with these problems.

With rapid changes in the business world, auditors only slowly realised they needed to be technologically proficient and, perhaps, adopt new approaches. The 21st Century forced auditors to rather "work through the computer" in performing their functions as virtually all business transactions were conducted via the information technology. Computer Assisted Audit Techniques (CAATs) were developed for using technology to assist in the completion of an audit. CAATs automated working papers and auditors used software to perform audits. CAATs were very useful when large amounts of data were involved or complex relationships of related data were needed to be reviewed to gather appropriate audit evidence from the aggregated data. It also increased the efficiency of the conclusions about data analysis. Several CAATs were developed like Generalized Audit Software, Data analysis software; Network security evaluation software/ utilities; OS and DBMS security evaluation software/ utilities; Software and code testing tools", Interactive Data Extraction and Analysis, and Audit Command Language.

2.3 Changing role of Auditors

In the last two decades, rapid and vast development in corporate governance has consolidated the auditor's position as a watchdog. The perpetual accounting and auditing failures like Enron, WorldCom, Paramalt, and more recently Satyam has exposed serious lacuna in the auditing. India's largest accounting fraud "Satyam" has dented auditing profession and surfaced the inherent conflicting position of auditors in the Indian business scenario. The recent 'PNB' scam and the more recent resignation of auditors in several listed entities just before the financial statements were to be adopted has also put the auditors; and their role in the limelight.

According to IFAC, objective of an audit is to enable the auditor to express an opinion on whether the financial statement is prepared in all material respects, in accordance with an identified financial reporting framework. The auditor's opinion helps to determine the true and fair financial position and operating results of an enterprise. This is considered as most accepted role of the auditors and mandated so by the corporate laws of most countries of the world. In India also, the auditor is cast with the responsibility of ensuring this aspect.

With development of stricter corporate governance codes and new reporting standards both in accounting and auditing, the auditor's role has implicitly enhanced to a great extent as against the traditional role of merely assessing the true and fair value of a corporation. With financial reporting standards now focusing on concepts of 'fair value', 'impairment' and 'going concern', which involve a high level of judgement, the role of auditors is becoming much more relevant than ever.

External auditors are the oldest watchdogs, to protect the interest of the shareholders by verifying the financial accounts and presenting their opinion on it. In India, in the recent decade, capital markets have grown tremendously, open access of market has been given to foreign nationals / investors, numerous corporate frauds (including Satyam, Ricoh, and PNB) happened, and vast developments in the field of corporate governance have taken place. All these increase the auditor's responsibilities and make them an integral part of corporate governance framework. They are now professed to play different roles and responsibilities, other than their statutory responsibilities in this contemporary business environment. The corporate governance reforms by SEBI in the form of Clause 49 and the more recent LODR has improved the status of auditing and given much needed significance to the role of auditors.

Conclusion

The overall conclusion of the chapter is business organisation preparing their financial statement to disclose their financial position, for better financial discloser we need better and improve accounting standard, accounting have the great role to play, manager and the preparatory of accounting statement should aware of new and effective accounting procedure. The stakeholders take different importance decision on the basic of audited financial accounts and audit report, auditor have the great role to play about the stale holder faiths, further more over the last decade, the users' expectations from financial statements and audit report thereon have undergone a sea-change. From a time where concise financial statements and crisp audit reports were favoured, the trend now is clearly towards more disclosures and transparency in financial statements and audit reports with more details. An attempt has been in this chapters to discuss the evolution of accounting and Auditing.

References

Anand G. Srinivasan, Auditing, Taxmann Publications Pvt. Ltd., New Rohtak Road, New Delhi.

ArunaJha, Student's Guide to Auditing & Assurance, Taxmann Publications Pvt. Ltd., NewRohtak Road, New Delhi.

Ashish K. Bhattacharyya-Essentials of Financial Accounting; PHI Learning Pvt. Ltd.

Ashok Sehgal & Deepak Sehgal, Advanced Accounting (Financial Accounting); Taxmann's, New Delhi.

Chartered Accountants – Himanshu Kishnadwala & Nilesh Vikamsey - (2018)- accounting and auditing in india – the past, present and future- Bombay Chartered Accountant Journal

J. R. Monga, Financial Accounting – Concepts & Applications; Mayoor Paperbacks, A-95, Sector5, Noida (U.P.)

M. C. Shukla, T. S. Grewal&S. C. Gupta- Advanced Accounts Vol. I, S. Chand & Company Ltd., Ram Nagar, New Delhi-55

P. C. Tulsian- Financial Accounting, Sultan Chand & Company, New Delhi.

R. L. Gupta & V. K. Gupta, Financial Accounting, Sultan Chand & Sons, New Delhi.

R. Narayanaswamy-Financial Accounting – A Managerial Prospective; PHI Learning Pvt. Ltd.

S. D. SharmaAuditing Principles & Practice, Taxmann Publications Pvt. Ltd., New RohtakRoad,New Delhi.

S. N. Maheshwari& S. K. Maheshwari,Advanced Accounting, Volume I; Vikas Publishing House (Pvt.) Ltd., Jangpura, New Delhi-14

S. P. Jain & K. L. Narang, Advanced Accounting, Volume I; Kalyani Publishers, Daryaganj, New Delhi - 2.

S. Sundharababu,A Handbook of Practice Auditing, S. Chand, S. Sundharsanam, B.N. Tondon&Company, New Delhi

T. P. Ghosh, A. Banerjee& K.M. Bansal,- Principles and Practice of Accounting, Galgotia Publishing Company, New Delhi-5.

LOOK EAST
Vol. 7, No. 1, 2021, pp. 81-95

Impact of COVID-19 Pandemic on Restaurants of Metropolitan Cities in India: A Study

Amrita Chatterjee*
Debasish Biswas#

Abstract

COVID pandemic has a severe brunt on every stratum of society. The sudden intrusion of the pandemic has altered the life style of both urban and rural people. Consequently, the business operations have also drastically changed. The prime objective of this paper is to explore the impact of COVID on restaurants in India and to recommend an approach forward. A sample size of 300 respondents has been considered in our study. The responses have been collected via Google form. The results proved that key issues encountered by the restaurants are change in behavioural patterns of the customers. The foremost changes necessary in the restaurants have been pointed out by the respondents are security and safety, health and hygiene, quality of food. This study will be extremely helpful for the restaurants to formulate their future strategies in the domain of operational functions in India.

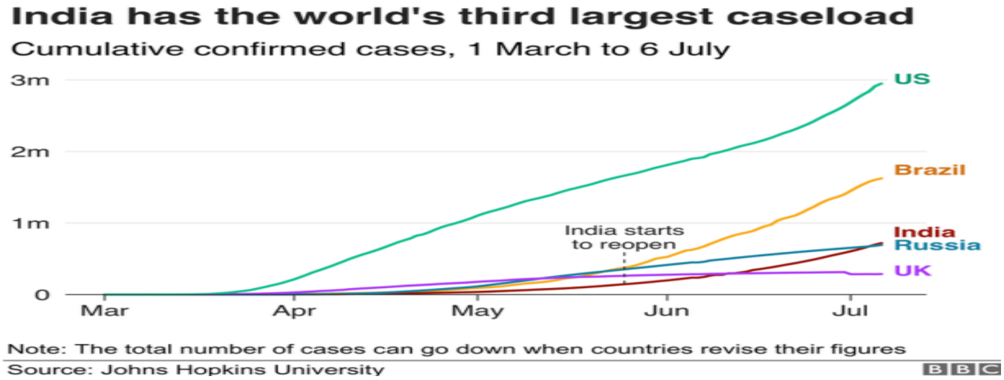
Key words: *COVID pandemic, Restaurants, Metropolitan cities, Change, Behavioural patterns, India.*

* *Dr. Amrita Chatterjee, Assistant Professor, Deptt. of Commerce, Rabindra Shatabarshiki Mahavidyalaya, Ghatal, West Bengal, India, E-Mail : chatteramrita@gmail.com, Contact No. +919432662586*

Dr. Debasish Biswas, Assistant Professor, Deptt. of Business Administration, Vidyasagar University, West Bengal, India, E-Mail: debasish762012@gmail.com, Contact No. +919832362955

1. Introduction

In past few decades, the earth has come across a range of virus-driven contagions, for example SARS-CoV (2002–03), H1N1influenza (2009), MERS-CoV (2012), Zika 2016 and SARS-CoV-2 (2019–20) (Dey, 2020), and (Yoo, 2020). In December 2019, a pneumonia outburst was invented in the metropolitan region of Wuhan province of China (Ibrahim M Ibrahim 1, 2020). Though, on 11th February 2020, WHO declared a name for the contagion virus, by 2019-nCoV, corona virus disease (COVID-19), and the International Committee on Taxonomy of Viruses (ICTV) renamed the previously phrased 2019-nCoV as SARS-CoV-2 (Gorbalenya, 2020). India has been brutally affected by COVID-19 with 11,971,624 confirmed cases and 161,552 deaths declared by WHO in its Corona virus Disease (COVID-19) dashboard in 2020. Presently, India is facing a severe crisis due to the ongoing second wave of COVID-19 and for the upcoming predictions about 3rd wave of the same virus outbreak. This situation has caused a noteworthy augment in the contaminated active cases and demises compared to the previous wave. Partial restrictions have been forced again. On 23 July 2021, there have been 31,293,062 confirmed cases of COVID-19, including 4,19,470 deaths, reported to WHO. As per Jhons Hoopkins University study, India is the third largest country in terms of case load till 6th July 2021.



Indian restaurant industry shifts drastically with a tending change in life styles and conventional consumption habits. In pre-COVID era, urban people were more prone towards restaurants. People used to visit restaurants on a regular interval; celebration of different occasions, weekend dines out, etc. The Indian restaurant industry is amongst the peak three service sectors after retail and insurance. This sector is 4.7 times larger than hospitality and 1.5 times of the pharmaceutical industry in India. This industry offered employment to 7.3

million people in 2018-19. In India, restaurants are innovative and offer an opportunity to grow with an average of 6.6 dine out frequency per month in the country ("NRAI", 2020). Indian restaurants had a market value of about 152 billion U.S. dollars in 2014. In COVID era, things are changing. Rapid growth rate of restaurant industry shows declining rate due to COVID-19 pandemic. In 2020-21, this industry has observed strict lockdown which is followed by partial lockdown, night curfew, etc. Throughout the pandemic, there was news related to the delivery people are infected by COVID-19, visitors of restaurants are being infected. Authenticity of these claims were never been verified. But these types of news have negative effect on restaurants. These sorts of rumours are sufficient to scare the customers to visit the restaurants, ordering the food online or a takeaway. It has become difficult for the restaurants to run the business. In this existing scenario, a survey has been conducted to know the requirements of the customers from the restaurants.

2. Background of the Study

The food and beverage industry is among the shining industries, by which essential demands of human growth are satisfied (Md. Tarek Chowdhury, 2020). Some studies related to restaurants demand analysis depend on how demands are being assessed. Most of the researches have taken a micro-level outlook by using individual's known choices, behavioural intents as a basis of restaurant demands (Kim and Geistfeld, 2003). Though such works can include individuals' heterogeneity when looking for understanding and predicting restaurants demand, these studies suffer from some limitations. 1st, consumer's stated choice and behavioural intention does not essentially reflects actual behaviour, or identified as hypothetical bias (Beck et al., 2016). Furthermore, customers' demand data acquired via surveys, counting revealed choice surveys, can be vulnerable to self-reporting bias and evoke error (Beshears et al., 2008). 2nd group of micro-level studies takes separate restaurants as the micro unit of analysis, depending on historical data to portray restaurants' demand (Bujisic et al., 2017). These researches can be more precise and consistent than survey-related researches but frequently comprise small sample size and focuses on one or a minimum number of particular restaurants. The 3rd group of researches centres on the macro level aggregated data, like restaurants' sales and visit to the local or state level, to forecast restaurants' demand (Reynolds et al., 2013). This kind of research may account for the controls of external variables on restaurants' demands, like the rate of employment and rate of inflation, and offers significant implications for strategy making. Some scholars have assume aggregated or econometric data modeling for the analysis of restaurant demand (Reynolds et al., 2013), regardless to mention their purpose to COVID-19. Crisis is troublesome and random event that has significant adverse effect on the businesses in progress operations, standing, productivity, expansion and endurance (Lerbinger,1997). The factors controlling restaurants demands, crisises represent a rare yet decisive force; some long-term crises can even damage the industry entirely. (Lerbinge,1997). Disaster events frequently have negative shocks on businesses via declining demand and returns, supply and reserve shortages, rising costs, the disturbance of usual operations and employees layoffs (Toby and John, 1998). Furthermore, different types of catastrophes may be interconnected and reason widespread ripple effect, together damaging an industry (Okumus and Karamustafa, 2005). Crisis incidents noted in the restaurant industry comprise natural catastrophes, (Becker, 2009), food safety related issues (Seo et al., 2018; Reynolds and Balinbin, 2003; Seo et al., 2014), epidemics, like SARS and Avian flu (Kim et al., 2020; Tse et al., 2006), monetary and financial crises (Lee and Ha, 2012; Lee and Ha, 2014) and terrorist attacks, like the 9/11 incident (Green et al., 2004). Pertinent researches have speak to the effects of disasters on restaurants' demand (Lee and Ha, 2012; Lee and Ha, 2014) and financial output (Seo et al., 2014; Kim et al., 2020). Restaurant's disaster management and reactions (Green et al., 2004; Seo et al., 2018; Tse et al., 2006) and consumers' reactions to disasters (Chuo, 2014).

As food is a basic prerequisite for human diet, normal actions should be continual to feed the customers (CISA, 2021) during pandemic-like situations. On an average, global agriculture contributes 83% of the food consumed by people (Mbow, et al., 2019). The food industry is a vibrant, global network of varied businesses that contribute to the vastness of the world's total food. In 2020, a report revealed that the food and beverage industry is one of the fastest growing industries in the world (Arenas-Jal, Suñé-Negre, Pérez-Lozano, & García-Montoya, 2020). Business industries in the world lost billions of dollars in COVID pandemic (Nicola et al., 2020). Most of the countries counting the US proclaimed billions of dollars as rescue packages for business ventures as well (Ozili & Thankum, 2020). Covid-19 pandemic has changed the situation. The pandemic has had a massive effect on the restaurant industry. In this research, 300 customers across various cities in India have been taken into consideration to understand the current state and future outlook of the restaurant industry.

Restaurant industry operations may roughly be subdivided in two parts: Delivery and Dining Out.

The food delivery has been recovered, with the overall recovery of around 75-80% of pre-COVID period.

In some of the cities, customers are joining home amusement with outside food. Residential localities are 50% better than commercial regions. Only Zomato has delivered 7 crore orders since March 25th 2020. Irregular lockdowns in some regions disturb restaurant businesses. The number of restaurants offering delivery is 70% of pre-COVID levels. Among this, about 5% restaurants did not offer delivery services in pre-COVID era. These are mainly dining out centric places. The organisations giving employees 'work from home' option increased use of online food delivery apps. Dining out system in India is still facing problem and functioning at 8-10% of pre-COVID situation. Droop in the industry is mainly driven by lockdown; consumers are not going out due to panic of transmission of Corona virus and restaurants are servicing for half of its working hour. In cities, restrictions have been lifted but only 17% restaurants are providing dining out facility and are running at little capacity. Almost 83% of the restaurants are not open for business. Moreover, 10% restaurants have shut down permanently due to huge loss in business. Though, recovery in India is slow and is mainly driven by industry's capacity to assemble back consumers' confidence. In spite of the difficult macro environmental situations, restaurants are reimagining their functions to be acquainted with this emerged social engagement.

3. Problem Statement and Research Objectives

COVID-19 has not only disturbed the smooth operations of restaurants but also caused in insecurity conditions in the mind of the consumers. From the commencement of COVID-19, a diversity of research has been done on the affects of the pandemic on restaurant industry; but, no study has been conducted about the underlying variables which determine the selection of a restaurant by the consumers in this period of 2nd wave of COVID pandemic in metropolitan areas. The current study has identified this problem area and tried to throw light on the consumers' perspective on selection of a restaurant.

The research objectives (RO) are given below:

i) To identify the present scenario of restaurant industry working in metropolitan cities in India.

ii) To determine the impact of COVID-19 on the consumer behaviour related to restaurant services.
iii) To extract the variables which are playing major role behind dine out service selection.
iv) To explore major factors behind changed consumer behaviour in COVID era.
v) To predict the future of restaurant industries in post-pandemic era?

4. Research Methodology

Pandemic of COVID-19 has restricted the researchers to use sample size determination formula. The questionnaires were sent to around 360 consumers of different metropolitan cities in India via Google form but 300 responses were recorded in this process. The questionnaire was designed in such a way to get insights about consumers' approach towards the restaurants. The researchers have analysed the questionnaire and identified 15 variables which are playing major role behind the selection of restaurants. Only identification of variables is not sufficient to explain the consumer behaviour in this context. Principle Component Analysis (PCA) has been conducted to identify the major factors that determine the selection of restaurants. The factor scores again have been used to conduct multiple regressions for validating the PCA result. The reliability of the data set has been tested by using Cronbach's Alpha. The responses of 300 respondents have been tabulated and analysed by using SPSS-20 software.

5. Data Analysis

The data analysis process is divided into different consecutive steps.
Step-1 Identification of Variables: The researchers have analysed the responses of consumers and they have identified 15 variables which are playing major role in restaurant selection. These variables are: lack of employees in restaurants, home cooked food v/s restaurant foods, reduction of income, available vaccine, sanitisation facility, social distancing, frequency of sanitisation, gloves and masks wear by the service people, entry criteria in the restaurants, outdoor seating arrangement, number of guests in a certain period of time, no touch washroom, disposable utensils, permission to visit the kitchen, and quality of food.

Step-2 Reliability: The score of Cronbach Alpha is 0.898 (Table-1) which is quite significant because the score above 0.6 indicates a good result in terms of reliability of a data set. Hence, the data set used here is reliable to conduct further statistical methods.

Table 1: Showing Reliability Statistics for 15 variables

Cronbach's Alpha	N of Items
0.898	15

Step-3 PCA: In the second step, PCA has been conducted with these 15 variables. In the beginning of PCA, KMO and Bartlett's Test (Table-2) result shows that the sample size is adequate to draw a conclusion about the consumers' attitude towards restaurants in this COVID pandemic. Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is quite high which is 0.874>0.6 and Bartlett's Test of Sphericity is significant, where p value is 0.000<0.005 which means the sampling adequacy and factor analysis is appropriate in this case.

Table 2: Showing KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.874
Bartlett's Test of Sphericity	Approx. Chi-Square	1327.387
	df	105
	Sig.	0.000

The communalities are shown in table-3. The proportion of each variable's variance is elucidated by the principal components. Here, the extraction values are quite high and high values are well corresponding to in the common factor space.

Table 3: Showing Communalities for Variables

	Initial	Extraction
lack of employees in restaurants	1.000	.499
home cooked food v/s restaurant foods	1.000	.786
reduction of income	1.000	.536
available vaccine	1.000	.402
sanitisation facility	1.000	.820
social distancing	1.000	.648
frequency of sanitisation	1.000	.813
gloves and masks wear by the service people	1.000	.660
entry criteria in the restaurants	1.000	.727
outdoor seating arrangement	1.000	.510

number of guests in a certain period of time	1.000	.763
no touch washroom	1.000	.557
disposable utensils	1.000	.622
permission to visit the kitchen	1.000	.611
quality of food	1.000	.754
Extraction Method: Principal Component Analysis.		

In this research study, we have used 15 variables and all the variables were used as components. On the basis of Eigen values, we have got 4 factors but here we have done qualitative analysis of the responses which we have recorded earlier. In this process, we have found that we can draw maximum 3 factors from these 15 variables. More than 3 factors will give us miss leading interpretation about the consumers' attitude. Here, we have used 'fixed number of factors' command in SPSS while running the factor analysis.

The first factor 'Security and Safety' is explaining 46.139% of variance of the variables which is followed by the second factor 'Health and Hygiene', explain 10.938% of variance and the third factor is explaining remaining 7.638% of the variance. The cumulative percentage column contains the cumulative percentage of variance accounted for by the current and all preceding principal components. Here, in the third row shows a value of 64.715. This means that first three components together account for 64.715 % of the total variance.

Table 4: Showing Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance
1	6.921	46.139	46.139	6.921	46.139
2	1.641	10.938	57.078	1.641	10.938
3	1.146	7.638	64.715	1.146	7.638
4	1.043	6.956	71.671		
5	.780	5.201	76.872		
6	.571	3.804	80.676		
7	.548	3.652	84.329		
8	.445	2.965	87.293		
9	.420	2.800	90.094		

10	.385	2.568	92.662		
11	.312	2.082	94.744		
12	.275	1.832	96.577		
13	.210	1.402	97.978		
14	.185	1.234	99.212		
15	.118	.788	100.000		

The variables have been segregated under each component by using the rotated component matrix.

Table 5: Showing Rotated Component Matrix[a]

	Component		
	1	2	3
lack of employees in restaurants	.860		
home cooked food v/s restaurant foods	.859		
reduction of income	.820		
available vaccine	.763		
sanitisation facility	.757		
social distancing	.744		
frequency of sanitisation	.625		
gloves and masks wear by the service people	.574		
entry criteria in the restaurants	.530		
outdoor seating arrangement		.746	
number of guests in a certain period of time		.741	
no touch washroom		.678	-.569
disposable utensils		.616	
permission to visit the kitchen		.599	
quality of food			.795
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 7 iterations.			

In table 5, we can observe that 9 variables viz. lack of employees in restaurants, home cooked food v/s restaurant foods, reduction of income, available vaccine, sanitisation facility social, distancing, frequency of sanitisation, gloves and masks wear by the service people, entry criteria in the restaurants are coming under the first component. The 2nd component takes into account 5 variables viz. outdoor seating arrangement, number of guests in a certain period of time, no touch washroom, disposable utensils, permission to visit the kitchen. The third component takes into account only 1 variable which is quality of food.

Here, we have given proper nomenclatures to three components which have been derived from PCA/ factor analysis. These three factors are:

1. Security and Safety
2. Health and Hygiene Factor
3. Quality of food

Step 4: Validating Results of Factor Analysis by using Multiple Regression

In this research study, we have taken average of individual respondent's responses for each variable as dependent score. The factor scores of three factors have been considered as independent variables for conducting the multiple regression analysis.

Table 6: Showing Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.945[a]	0.893	0.891	0.209
a. Predictors: (Constant), health and hygiene factor, quality of food, security and safety factor				

The model summery shows (Table-6) that adjusted R^2 value is 0.891; which means the independent variables are able to explain 89% of the variability of the dependent variable. ANOVA table shows p value of 0.000 which is significant at 95% level of confidence.

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.097	.132		.731	.466
	Quality of food	.068	.019	.100	3.579	.000
	Security and safety factor	.603	.031	.668	19.170	.000
	Health and hygiene factor	.300	.028	.369	10.554	.000
a. Dependent Variable: average of dependent score						

In Table-7, we get the values of unstandardized coefficients. These coefficients are used to establish the regression equation and showing the relations between independent variables and the dependent variable. The regression equation is as follows:

$$SR = 0.068\ QF + 0.603\ SS + 0.300\ HH$$

SR stands for selection of restaurants; QF stands for quality food; SS stands for safety and security; and HH stands for health and hygiene From the equation, it is very clear that the regression coefficient of safety and security is the highest followed by health and hygiene, and quality food. Therefore, we can say that 'safety and security' is the highest influencing factor in the case of selection of restaurant.

The dependent variable is identified as selection of restaurants in COVID pandemic.

6. Findings and Conclusions

People are waiting to visit the restaurants fearlessly but the pandemic has left deep impression on their minds. As a result, foodies of metropolitan cities in India are considering three major factors before visiting the restaurants. The three major factors are 'Security and Safety' factor, 'Health and Hygiene' Factor, 'Quality of Food'. 'Security and Safety' is the prime concern of the consumers. This research has identified that restaurants in metropolitan cities are operating now with 50% of the workforce. The majority of the consumers are facing salary cut due to COVID pandemic. As a result, they are very much concerned about visiting a restaurant physically. The consumers would like to know whether the staffs are vaccinated or not? The entry criteria in the restaurants must be defined. The vaccinated consumers should get the chance to sit in an AC restaurant. Sanitisation facility must be transparent and frequent. Sitting arrangements should be done in such a way that it would maintain the social distancing criteria. The service people must wear gloves and masks while cooking the food and as well as when serving the food. When home cooked foods are taken into consideration, the home cooked foods are safer than restaurant made foods because people often think non-home made foods may cause stomach infection. This situation can be handled by the restaurants by assuring quality ingredients along with better taste. The second most important factor is health and hygiene under which the consumers are taking into consideration about outdoor seating arrangements, number of guests in a certain period of time, no touch washroom, disposable utensils, and permission to visit the kitchen. Outdoor seating arrangement is very important for those customers who are not yet vaccinated and they don't want to take a chance by sitting inside the AC room. If any restaurant allows more than 50% of the sitting capacity then that restaurant is not preferred by the consumers. If a consumer visits a restaurant, then it is quite possible that he/she may have to use the washroom. The door, basin, etc. are touched by multiple people. So, chance of contamination increases. In these circumstances, the consumers prefer no touch wash room; where doors, basin, etc. have motion sensors. The utensils used in the restaurants were mostly non disposable in pre-COVID era. Now, the customers are demanding disposable utensils in this COVID time. The kitchen should be open for consumers to visit because this will ensure the consumers that hygiene is being maintained. The last factor which is indispensable in case of visiting any restaurant is quality of food. Fresh foods with quality ingredients are more preferred than taste of the food. Bad food can decrease immunity of the consumer. So, quality of food becomes more important than taste.

The suggestions to the restaurant owners are:

1. They must maintain the cleanliness of the restaurants.
2. Fresh foods must be served.
3. Hygiene inside the kitchen and dining area must be ensured.
4. Only the vaccinated employees will be allowed to serve the consumers.
5. No compromise should be done with the quality of food.
6. The price range of the foods must be affordable.

References

Arenas-Jal, M., Suñé-Negre, J., Pérez-Lozano, P., & García-Montoya. (2020). Trends in the food and sports nutrition industry: A review. *E. Trends in the food and sports nutrition industry: A review* .

Beck, M. F. (2016). "Can you ever be certain? Reducing hypothetical bias in stated choice experiments via respondent reported choice certainty", Transportation Research Part B:.

Becker, C. (2009). "How a natural disaster changed the face of the restaurant industry in Southern Mississippi: a Katrina story", Journal of Foodservice Business Research, Vol. 12 No. 3, pp. 266-274.

Beshears, J. C. (2008). "How are preferences revealed?", Journal of Public Economics, Vol. 92 Nos 8/9, pp. 1787-1794.

Bujisic, M. B.-3. (2017). “The effect of weather factors on restaurant sales”.

Chuo, H.-Y. (2014). “Restaurant diners’ self-protective behavior in response to an epidemic crisis” International Journal of Hospitality Management, Vol. 38, pp. 74-83.

CISA. (2021, March 12). *CISA. Guidance on the Essential Critical Infrastructure Workforce*. Retrieved from https://www.cisa.gov: https://www.cisa.gov/publication/

https://nrai.org/buy-report/. (n.d.). Retrieved from https://nrai.org.

Ibrahim M Ibrahim 1, D. H. (2020, March 10). *COVID-19 spike-host cell receptor GRP78 binding site prediction*. Retrieved 2021, from 10.1016/j.jinf.2020.02.026. Epub 2020 Mar 10: https://pubmed.ncbi.nlm.nih.gov/32169481/

Kim, J. K. (2020). “Effects of epidemic disease outbreaks on financial performance of restaurants: event study method approach”, Journal of Hospitality and Tourism Management, Vol. 43, pp. 32-41.

Lee, K. a. (2012). “Exploring the impacts of key economic indicators and economic recessions in the restaurant industry”, Journal of Hospitality Marketing and Management, Vol. 21 No. 3, pp. 330-343.

Lee, K. a. (2014). “How do economic recessions affect the US restaurant industry?”, Journal of Foodservice Business Research, Vol. 17 No. 4, pp. 353-362.

Lerbinger, O. (1997). The Crisis Manager: Facing Risk and Responsibility, Lawrence Erlbaum Associates, NJ.

Mbow, C., Rosenzweig, C., Barioni, L., Benton, T., Herrero, M., Krishnapillai, M., et al. (2019). *IPCC Special Report on Climate Change and Land. 2019*. Retrieved 2021, from https://www.ipcc.ch/site/assets/uploads

Md. Tarek Chowdhury, A. S. (2020, July 1). *A case study on strategies to deal with the impacts of COVID-19 pandemic in the food and beverage industry*. Retrieved 2021, from https://doi.org/10.1007/s12063-020-00166-9.

Okumus, F. a. (2005). “Impact of an economic crisis evidence from Turkey”, Annals “Impact of an economic crisis evidence from Turkey”, Annals.

Reynolds, D. R. (2013). “Econometric modeling of the US restaurant industry”, International Journal of Hospitality Management, Vol. 34, pp. 317-323.

Samrat K. Dey, M. M. (2020, March 3). *Journal of medical virology*. Retrieved 2021, from https://doi.org/10.1002/jmv.25743: https://onlinelibrary.wiley.com/doi/10.1002/jmv.25743

Seo, S. M. (2018). “How have restaurant firms responded to food.

Sufi, T. (2021). *https://www.researchgate.net/publication/349809665*. Retrieved from https://www.researchgate.net.

Toby, J. a. (1998). "Crisis management: prevention, diagnosis and intervention", Leadership and Organization Development Journal, Vol. 19 No. 4, pp. 179-186.

Tse, A. S. (2006). "Crisis management and recovery: how restaurants in Hong Kong responded to SARS", International Journal of Hospitality Management, Vol. 25 No. 1,pp. 3-11.

Yoo, J.-H. (2020, January 30). *https://doi.org/10.3346/jkms.2020.35.e56*. Retrieved 2021, from The Korean Academy of Medical Sciences: https://jkms.org/DOIx.php?id=10.3346/jkms.2020.35.e56

LOOK EAST
Vol. 7, No. 1, 2021, pp. 96-105

Tourism Development and Potentiality in Pedong (West Bengal), Zuluk (Sikkim) Circuit - A Study on Village Based Ecotourism of Icche Gaon, Kalimpong-II CD Block, Kalimpong, West Bengal

Somenath Nandan*

Abstract

According to WTTC (World Travel and Tourism Council), India ranked 3rd among 185 countries in terms of travel and tourism contribution to GDP in 2019. It is an integral part of the economy as the largest service industry of India in this century. The major objectives of this paper are to promote village-based Ecotourism in the Icche Gaon as a preferred destination for visitors and provide opportunities using the latest approaches for Sustainable development of nature and generate revenue for the state. In Ecotourism community has a central role to play. The host community's success in bringing Ecotourism to it and ensuring that the level and type of tourism are compatible with the community's aspirations are matters the community can control.

Keywords -*Tourism, Sustainability, Community, Aspiration, Ecotourism*

1. Introduction

Over the years Tourism has become an integral part of economic, social, psychological and physical development. It is considered as an important source of the economy, especially in terms of its contribution towards foreign exchange earnings, generation of national income and promotion of local

* *State Aided College Teacher (Category -I), Bethuadahari College, Bethuadahar, Nadia, West Bengal, Pin: 741126, Email: somenathn20@gmail.com*

employment, particularly in remote and backward areas. In the 21st century, the tourism industry has attained its predicament as the largest service industry in India. It is because of the fact that in 2019, the tourism industry contributed nearly $194 billion, around 6.8 per cent of GDP. Out of 185 economics, India stood 10th in terms of the size of travel and tourism spend in 2019. The UN national year of Ecotourism in 2002 reviewed Ecotourism experiences worldwide, highlighting three significant aspects. a) Nature, b) Tourism, c) local communities. Likewise, there have been proposals to link culture and Ecotourism into a more sustainable perspective which can knowledge of the national environment, built environment, icons and attractions of destinations as a part of a cultural package.

Icche village has preferred as a destination for visitors and the area provides opportunities using the latest approaches for Sustainable development of the nature and thereby generating revenue for the state. Harmony is to be fostered between people, environment, conversation and development. The involvement of local communities in tourism (Ecotourism) would support their livelihood needs and consequently create their direct stake in the conservation of local culture, ecology and environment. This concept of village-based Ecotourism would go a long way in providing better income generation options to rural people. If a community wants to host Ecotourism, it has a central role to play. Conservation of habitats of flora and fauna as well as any site, natural feature or culture, which may be affected by tourism. In this paper community-based Ecotourism has been critically analysed and tried to formulate some management plans for the sustainability of nature with tourism.

2. Objectives

Major objectives of the present study are:

• To analyse the socio-economic scenario of the households.

• To examine the nature and availability of public utilities.

• To review the perception of dwellers on the development of home stay tourism.

• To access the Potentiality of the study area in respect of tourism development.

3. Methodology

The study provides two hypotheses in order to assess the perceptions of local residents towards sustainable tourism development in the study area.

Hypothesis 1: There is a positive association between residents' perceptions towards sustainable tourism development in Icche Gaon.

Hypothesis 2: There is a positive relationship between sustainable tourism development dimensions and residents' specific demographic character.

The study is based on primary data collected through the intensive field survey in the Icche village. The primary information is supplemented with secondary data whenever needed. To access the tourism influence in the village within the last five years, Tourism composition and local attitude towards the tourists, a structured questionnaire has been developed. The information regarding the influence of Tourism inflow on the village economy, and villagers' perception of ecotourism have been collected partially, i.e number of the concerned facility was ensured through field investigation. 20 heads of homestays are interviewed to find out the nature of tourist growth and problems related to the development of this sector of the economy. The entire survey was conducted during march 2019 (the best time of tourist inflow) and collected data have been analysed.

4. Discussion

In an effective framework Sustainable development of Tourism is analysed with four main criteria:

• Sustainable use of Biodiversity and natural resources.

• impact minimisation especially in terms of change and energy consumption.

• Empowerment and fully informed participation of local stakeholders, particularly local communities and indigenous people.

• Awareness raising and environmental education of travellers and hosts.

Age sex composition of Tourists: In the year 2006 when a lot of marketing has developed for the silk route along the Pedong- Reshi- Zuluk route. After 2 years from 2008, the village-based Ecotourism has made a journey with the help of founder Mr. Sebastian Pradhan of Reshi, Kalimpong. From that time to the present, the scenario is drastically changed and Icche Gaon near Pedong is now a must-visit destination along the silk route.

Table 1: Age-Sex Composition of Tourists in Icche Gaon during 2015–2019

Tourist	Age-Sex Composition of Tourists (in Per Cent)					
	Up to 10 Yrs.	**10 – 20 Yrs.**	**20 – 30 Yrs.**	**30 – 40 Yrs.**	**40 – 60 Yrs.**	**Above 60 Yrs.**
Male	3.1	7.6	12.6	25.7	9.2	5.2
Female	1.6	4.2	11.4	8.6	8.5	2.3

Source: Tourist Survey

From the above table, it has been found that most of the Tourists who visited Icche Gaon are from 20 years to 40 years age group. As it is a mountainous region, young people are attracted very much. Though a minimum old age tourists visit this place and most of them are foreign tourists.

Purpose of selection of Icche village by the tourist: 52 per cent of tourists have selected Icche Gaon for spending their vacation, 20 per cent for excursion and summer camp, 18 per cent for just passing through, nearly 5 per cent for attending the meeting, 2.5 per cent for the special event and nearly 3 per cent for business purposes. It is clear from the data that most Tourists select Icche Gaon either for vacation or study purposes as the area is very rich in biotic diversity.

Table 3: Purpose of Visit of Tourists in Icche Gaon

Tourist	Purpose of Visit of Tourists (in Per Cent)						
	Just Passing Through	Attending Meeting	Business	Visit Friends	Special Event	Excursion/ Summer Camp	Vacation
Male	17.50	3.50	2.75	1.25	2.00	11.75	32.50
Female	1.50	1.00	0.00	0.00	0.50	7.50	18.25

Source: Tourist Survey

Origin of the Tourists: Tourists are one of the vital sources of income in Icche Gaon. People are coming from different districts of West Bengal and other states as well being attracted by its natural beauty. From the below table it is found that most of the tourists came from Kolkata (48.5 per cent) after that Howrah (12.25 per cent), Darjeeling (7.75 per cent) and Jalpaiguri respectively. Besides West Bengal tourists also came from other states like Bihar (2.5 per cent), Assam (2.5 per cent), Jharkhand (1.5 per cent) and Uttar Pradesh (0.5 per cent) respectively.

Table 2: Origin of Tourists at Icche Gaon during 2017 – 2019

Tourist	Origin of Tourists (in Per Cent)						
Within the District	Kolkata	Howrah	Medinipur	Purulia	Bankura	Bhirbhum	Darjeeling
	48.5	12.25	2.75	1.25	2.5	2.5	7.75
	Nadia	Barddhaman	Murshidabad		Jalpaiguri		Koochbeher
	2.25	2.5			5.75		4.5
Other State	Bihar	Oddisa	Jharkhand	Uttar Pradesh			Assam
	2.5	0.5	1.5	0.5			2.5

Source: Home Stay Report

Inflow of Tourists: The number of tourists both in domestic and foreign respect has increased year by year. From 2015 to 2019 the nature of increase is nearly 7.5 times and in the case of foreign tourists, it has been nearly 12.5 times. If the growth percentage is considered, it has been found that the nature of growth is fluctuating in respect of domestic tourists but it is declining in the case of foreign tourists.

Table 4: Inflow of Tourist (Domestic and Foreign) in Icche Gaon during 2015-2019

Year	2014	2015	2016	2017	2018	2019
Domestic Tourists	1689	2879	3257	3917	7856	9219
Foreign Tourists	78	135	278	453	768	1064

Source: Home Stay Report

Duration of stay in Icche Gaon: The table shows that 37.50 per cent of tourists have spent 1 night at Icche village, 33.50 per cent spend 2 nights, 18.50 per cent spend 3 nights, 8.50 per cent spend 4 nights and 2 per cent have spent 1 week respectively. Basically, Icche Gaon is used by tourists as the standing point or endpoint for the silk route (Pedong- Aritar- Zuluk circuit).

Table 5: Halting Pattern of Tourists in Icche Gaon

Halting of Tourists (in Per Cent)				
1 Night	2 Nights	3 Nights	4 Nights	1 Week
37.50	33.50	18.50	8.50	2.00

Source: Home Stay Report

Service performance character of homestays in Icche Gaon: Another aspect in this study was the evaluation of a series of key elements for the development of Tourism. Thus different aspects of service to tourism in Icche Gaon are presented using a 5 point Likert scale. (1- very poor quality, 5- very rich quality). The evaluation of service performance character has been presented in the table below:

Table 6: Service Performance Character perceived by Tourist

Service Performance Character	Value	Service Performance Character	Value
Quality of Cleanliness	4.7	Evening Refreshment	3.7
Maintenance of Bathrooms	3.9	Electricity	3.2
Proper Ventilation	2.9	Quality and Quantity of Water	3.9
Laundry Services	1.5	Communication	4.5
Supply of Foods	4.6	----	---

Source: Primary Survey on Tourist

In accordance with the table, the tourist surveyed considered the quality of cleanliness, supply of food, communication and quality of water are the best elements in that order. At the other end of the scale, the need for laundry services and proper ventilation of rooms of Icche village as well as electricity and maintenance of bathrooms require improvement as regards tourism development in the area. These rents could serve to encourage the different branches of local government in the village and private businesses to strengthen these elements with tourists consider weaknesses. However, the average level of satisfaction of the tourists surveyed reflects a high level of satisfaction. The table demonstrates that the majority of tourists are either satisfied or very satisfied with their stay.

Village Community based Ecotourism:

As an enterprising effort, ecotourism can be establishing a sustainable relationship for the improvement of the welfare of such communities in various way through participation, resource sharing framework development of livelihood opportunities and conservation of resources. It is recognised that community development is based on the locally initiated, through a location or site-specific approach to finding an alternative solution for the issues they face using synergy existing between a community member and community resources.

Employment opportunities offered by a site-specific development programme are one of the most important yardsticks for the assessment of economic sustainability. In Icche village while taking stock of employment it can be divided into categorised viz; ecotourism services and enterprise. The attitude of the head of the homestay runner toward the ecotourism is given below in the table.

Villages based on quality ecotourism services are one of the deciding factors of destination sustainability. Skilful villagers can manage the available resources very effectively by selling their services to tourists. Icche village has organised a number of such activities for the community members to involve them most efficiently:

- Guiding and interpretation.
- Sightseeing programme.
- Forest watcher and Destination cleaning.
- Honey processing and paper carry bag production.
- Organic farming.

Findings on the basis of SWOT analysis:

The overall SWOT analysis (an acronym for the Strengths, Weakness, Opportunities and Threats) of the tourism sector in Icche village is based on a detailed interaction with the tourist, homestay owners, local communities and other private sector stakeholders of the region.

Strengths

- Icche Gaon as a 'land of peace and tranquillity' with the grandeur of the mountain peaks, terraced hills, valleys, tropical forest, brilliant with the richness of vivid flowers, birds, butterflies, colourful monasteries is a rare and unique experience for any kind of visitors.

- Famous for Kanchendzonga at 8532 mitres, the third largest mountain in the globe.
- Rich cultural heritage where communities, cultures, religions, and customs of different hues intermingle freely here to constitute a homogeneous blend.
- Rich historical significance as it is a part of old silk route.
- Tourism has been organised as a prominent feeding industry in the district.

Weaknesses

- Extremely poor connectivity and pathetic road condition.
- Extremely travel costs due to absence of adequate public/private transportation.
- Absence of sufficient resort-type accommodations away from Darjeeling.
- Non-availability of dishes like Gujarati, Marathi, Panjabi, and Himachali to suit varied tastes of varied tourists.
- Absence of entertainment facilities from the capital town as well as the study area as per need.
- Lack of professional management of tourist facilities and improper maintenance of existing infrastructure.
- Limited capacity of existing institutional mechanism for implementing the plan, projects and schemes at a faster level.

Opportunities

- Area could be a real gateway to China and other Asian nations in terms of reopening of the famed Silk- Route Trade on 6th July 2006.
- State government of West Bengal has accorded special attention to the North Bengal region for economic and tourism development. Thus, the time is ripe for speedy tourism development.
- The state is a centre of attraction in entire panorama of Buddhist Circuit Tourism among Sikkim, Bhutan, Nepal, Tibet and Mayanmar. This could undoubtedly be a most fascinating initial tourism site on the 'Forgotten Pedong- Zuluk' circuit.

- There is ample scope for positioning Kalimpong as Tourism as a unique brand in relation to others parts of the country.
- The Indian government policy of 'look- East' modified as 'Act East' is certainly a giant possibility for marketing West Bengal Ecotourism across the national and international borders in post-globalization era.

Threats

- Frequent bandh and strikes due to political instability in this part of West Bengal.
- Increase Biotic pressure due to increase in Tourism.
- Political disturbances in neighboring Tibet and other states of the Northeastern region could affect the tourism image.
- Unrestricted growth in tourists can result in environmental degradation.
- Continued popularity of regional destinations (e.g., Sikkim, Nepal and Bhutan) can sideline Icche hamlet as well as North Bengal destinations.

5. Conclusion

In conclusion, it is important to conclude that the environmental and socio-cultural impacts on the village areas that have emerged in the study area are highly influenced by the national policies that have come with the new democratic order in North Bengal tourism. Some of these policies provided a legislative framework and guidelines for tourism promotion and development in Icche village of Kalimpo-II block. In an attempt to curb negative impacts, tourism development and promotion should be guided by the core values and principles of development. Sustainability cannot be claimed as achieved if it marginalizes the local community even though the tourists, the government and the entrepreneurs are benefited. In this way, ecotourism in this area requires to be developed by amending the laws for attaining the objectives of sustainability. These core values and principles include responsible tourism; community-driven tourism; integrated and sustainable tourism; peace, safety and security in tourism and tourism assessment and accountability.

References

Bajrang L M. and Nibedita D. (2012). A Study on Eco-tourism Potential in Tripura, North-east India 1(5), 1-4.

Blesky, Jill M. (1999). Misrepresenting Communities: The politics of Community based rural eco-tourism in Gales point Manatee, Belize. Rural Sociology. 64, 641-666.

Boora S.S (2005). Ecotourism and Environmental Sustainability in India in Bulletin of the National institute of Ecology 15, 249-258.

Bora B.et al. (2007). Northeast Tourism and Momentum in terms of Sustainable development focus. The international journal of management Digest (2), 7-20.

Chandralal, K.P.L (2010). Impacts of Tourism and Community Attitude towards Tourism: A case study in Srilanka, South Asian Journal of Tourism & Heritage (SAJTH), International Research Journal 3(2), 41-49.

Greathouse A, Louisa (1997). Ethnic, Cultural and Ecotourism. American Behavioural scientist 40, 936-943.

India Tourism Statistics (2019). Ministry of Tourism, Government of India.

Khan, M.M. (2003). ECOSERV: Eco-tourists' quality expectations. Annals of Tourism Research. 30, 109-125.

Mathieson, A. (1982). Tourism: Economics, Physical and Social Impacts. Longman, New York.

Medina, L.K. (2003). Commoditizing Culture: Tourism and Maya Identity. Annals of Tourism Research 30: 363-368.

Poyyamoli, G. (2003). Promotion of Peace and Sustainability by Community Based Heritage Eco-Cultural Tourism in India. International journal of Humanities and peace 19, 40-45.

Singh R, B, Mishra D.K. (2004). Green Tourism in Mountain Region- Reducing Vulnerability and Promoting People and place centric Development in the Himalayas. Journal of Mountain Science 3(1), 57-64.

Subhajit D, Priyom K R (2012). Village Tourism in Sikkim, India: A Pre-colonial Approach for Sustainability. International Journal of Social Science Tomorrow 1(4), 11-16.

LOOK EAST
Vol. 7, No. 1, 2021, pp. 106-115

Plagiarism and Its Consequences in Academic Integrity: Crisis and Cure

Dr. Santosh Kumar Tunga*

Abstract

Academic integrity (AI) is the intellectual honesty in proposing, performing and reporting any academic activity, which leads to the creation of intellectual property. AI is the foundation of academic success. Honesty is sincerity with attempt to acknowledge the original source where the material was found. The present paper explains the concept of plagiarism and types of plagiarism. It discusses the main reasons for plagiarism, strategies for avoiding plagiarism and level of plagiarism and penalties.

Keywords: Academic Honesty, Academic Integrity, Higher Educational Institutions, Plagiarism, Plagiarism Checking Software

1. Introduction

Plagiarism is the act of presenting the academic work of another's work as your own work. If you use the work of someone else and either knowingly or unknowingly claims it as your own creation and original, you are committing an act of plagiarism. Plagiarism is an unethical act or scholarly practice of presenting that another writer's work is your own. So, plagiarism is an issue of research misconduct in academic and research activities. Plagiarism is copying words, sentences or text from any sources of information without proper and adequate acknowledgement and citation. Stealing or borrowing content without mentioning or citing the source in a research article is also a kind of plagiarism. Plagiarism check and avoidance have been of greater concern in academic, higher education institutions, writers, etc.

* *Associate Librarian, Rishi Bankim Chandra Evening College, Naihati-743165, North 24 Parganas, West Bengal, India, E-mail: tungask@rediffmail.com, Mobile: 9432080868*

2. Purpose of the Study

The main purposes of the present study are as under:

- To create awareness about the concept of plagiarism
- To understand the various strategies to prevent plagiarism
- To establish the scholarly practice in order to check plagiarism
- To prepare a list of plagiarism checking software
- To discuss the different levels of plagiarism

3. Definition of Plagiarism

The Oxford English Dictionary (1989) defines plagiarism as the "wrongful appropriation or purloining, and publication as one's own, of the ideas, or the expression of the ideas (literary, artistic, musical, mechanical, etc.)". The Webster's College Dictionary (1991) equated plagiarism with kidnapping of language and ideas and defined as "the unauthorized use of the language and thoughts of another author and the representation of them as one's own". Stearns (1998) defined plagiarism as "intentionally taking the literary property of another without attribution and passing it off as one's own, having failed to add anything of value to the copied material and having reaped from its use an unearned benefit". Thus, plagiarism is nothing but an act of fraud and theft. It is a kind of academic dishonesty and a form of research misconduct. It is use of unfair means like research falsification, data-fabrication, ghost writing, piracy, proxy writing, literary-theft, recycling previous research. It is lack of adequate and formal acknowledgement to the original source of idea and expression in writing any other forms of expression (Satiza & Martinez-Avila, 2019).

4. Types of Plagiarism

The previous related literature is mentioned of various types of plagiarism in practice. In a study Worthington (2014) suggested the different types of plagiarism such as paraphrasing; word for word; word switch; copy and paste; idea, style, metaphor; and self-plagiarism. Eassom (2016) identified ten types of plagiarism as paraphrasing plagiarism, complete plagiarism, verbatim plagiarism, misleading attribution, repetitive research, replication, duplication, unethical collaboration, secondary source and invalid source. Klausman (1999) mentioned similar types of plagiarism like direct plagiarism, paraphrasing plagiarism and patchwork plagiarism. Therefore, the following different main types of plagiarism identified by Singh & Singh (2020) are explained below:

A) *Direct or Verbatim Plagiarism*: Using another author's work without proper acknowledgement that the material was identified in an outside source is treated as direct plagiarism. Copying another author's work directly with no attempt to acknowledge the source where the material was found.
B) *Intentional Plagiarism*: Intentional plagiarism is coping, cutting and pasting of word or idea of someone else and using it as own. It also includes buying or borrowing others work and submitting it as own. It may also include media such as audio, video recorder without citing.
C) *Insufficient Citation of Partial Quotations*: Using partial sentences, words, or phrases that are stylistically or intellectually marked as another writer's without quotation marks within a larger paraphrase of the source, with or without attempt at citation.
D) *Mosaic or Patchwork Plagiarism*: Any author is simply paraphrased the works of someone else in his/her writings without acknowledge the original sources. Direct 'patchwork' plagiarism occurs when an author copies work from various authors and rearranges those materials without acknowledging the original sources.
E) *Paraphrase or Summarize Plagiarism*: Changing the words of an original source, but using the ideas in your work with no attempt to acknowledge that those ideas are not your original thought, even if the author adds his or her own spin to the original.
F) *Plagiarism of Graphs, Charts, Figures, or Images*: Using graphs, charts, figures, or images from a source without acknowledging that another writer developed them.
G) *Self-Plagiarism*: It is also referred as 'data fragmentation' or 'salami slicing'. In such a case, the author uses his/her own previously published work without adequate citation and proper acknowledgment. Although, the issue of self-plagiarism is still under debate, however, the use of previously self published materials do infringe the copyright of the publisher.
H) *Unintentional Plagiarism*: The unintentional plagiarism is where author is less aware with the skills of paraphrasing and summarizing and omits or uses incorrect citation unintentionally. It also happens in case of inexperienced writer or extreme use of quotation.

5. Reasons for Plagiarism

Singh & Singh (2020) has recently pointed out that "the digital environment has facilitated access to large amount of information along with an easy and speedy process of cut copy and paste". In same line Sprajc et al. (2017) found that Information and Communication Technology (ICT) is the main reason for plagiarism. The study conducted by Harji et al. (2017) has established that improper time management and lack of writing skills are two major reasons for plagiarism. Author identified the following reasons for plagiarism:

- Unawareness of copyright & intellectual property right (IPR)
- Impact of Information and Communication Technology (ICT) and also digital environment
- Lack of communication skills and information handling skills
- Lack of command over the language
- Availability of required information on Internet
- Lack of domain knowledge or adequate experience in his/her own filed
- Unaware of procedures for proper citation and paraphrasing
- Lack of awareness about the general concept of plagiarism and its policies and regulations

6. Techniques for Avoiding Plagiarism

You may read and understand the concepts and ideas containing in the published literature such that books, journal articles, conference papers, theses and dissertations, etc. But not by copying, what they say. The ideas are owned and created by the writer. Copying in a way that makes the ideas appear to be your own is plagiarism. The following scholarly practices will help you to avoid plagiarism as explained below:

- The best practice is to cite original source
- Paraphrased information and direct quotations must always be presented in text with proper quotation marks and cited in reference section
- Avoid changing, copying and rearranging the words of another writer's work
- Acquire good writing skills
- Must have sound domain knowledge of your own subject field
- Put the copied text in quotation (" …….") marks
- Better understanding of copyright rules
- Avoid outsourcing work of someone else
- Proper funding, incentive and encouragement for original research work

- You must acknowledge your sources of information

Besides these you must follow the rules when copying directly from another writer's ideas, words, design, graphs etc. pointed out in below:

a) Direct copying of part of a passage i.e. a whole paragraph must used in your writing and once copied should not represent a large proportion of your own text. It should be clearly distinguished from the rest of your text by using quotation marks.
b) Very short parts of a source text i.e. part of a sentence can be copied when required. However, the words that you have copied must be immediately obvious to your reader. You must also take care not to change any of the words.
c) The exact source of your quotation must be acknowledged. This must be done in a way which shows clearly how much is copied.

7. Plagiarism Checking Software

There are many open source and commercial plagiarism checking software in the market. Some of these are listed in below:

A. *Open Source Plagiarism Checking Software*
   - Copyleaks: https://www.duplichecker.com/
   - Dupli Checker: https://copyleaks.com/
   - PaperRater: https://www.paperrater.com/
   - Plagiarism Checker: http://www.plagiarismchecker.com/
   - Plagiarisma: http://plagiarisma.net/
   - Plagium: http://www.plagium.com/
   - PlagScan: https://www.plagscan.com/plagiarism-check/
   - PlagTracker: http://www.plagtracker.com/
   - Quetext: https://www.quetext.com/
   - Viper: https://www.scanmyessay.com/

B. *Commercial Plagiarism Checking Software*
   - iThenticate: http://www.ithenticate.com/
   - Turnitin: https://www.turnitin.com/
   - Urkund: https://www.urkund.com

8. Levels of Plagiarism and Penalties

There are four levels of plagiarism, penalties in case of plagiarism in submission of theses and dissertations, and penalties in case of plagiarism in academic and research publications for Higher Educational Institutions (HEI) notified by UGC (Promotion of Academic Integrity and Prevention of Plagiarism in HEIs) Regulation, 2018 on the 23rd July, 2018 to curb the menace of plagiarism in academics.

A. Level of Plagiarism and Penalties in submission of Theses and Dissertations

Plagiarism would be quantified into following levels in ascending order of severity for the purpose of its definition:

Level	Similarities	Penalties
Level 0	Upto 10%	Minor similarities, no penalty
Level 1	Above 10% to 40%	Such researcher shall be asked to submit a revised script within a stipulated time period not exceeding 6 months
Level 2	Above 40% to 60%	Such researcher shall be debarred from submitting a revised script for a period of one year
Level 3	Above 60%	Such researcher registration for that programme shall be cancelled

B. Level of Plagiarism and Penalties in Academic and Research Publications

Plagiarism would be quantified into following levels in ascending order of severity for the purpose of its definition:

Level	Similarities	Penalties
Level 0	Upto 10%	Minor similarities, no penalty
Level 1	Above 10% to 40%	Shall be asked to withdraw manuscript

Level 2	Above 40% to 60%	(i) Shall be asked to withdraw manuscript (ii) Shall be denied a right to one annual increment (iii) Shall not be allowed to be a supervisor to any new Master's, M Phil, Ph D, student/scholar for a period of two years
Level 3	Above 60%	(i) Shall be asked to withdraw manuscript (ii) Shall be denied a right to two successive annual increments (iii) Shall not be allowed to be a supervisor to any new Master's, MPhil, Ph D, student/scholar for a period of three years

9. Assessment Authority on the Complain of Plagiarism

It is essential for Higher Educational Institutions (HEIs) to constitute the following Academic Integrity Panel (AIP) for investigate and submit the report of plagiarism cases:

A. Departmental Academic Integrity Panel (DAIP)

(i) All Departments in HEI shall notify a DAIP whose composition shall be as given below:

a. Chairman – Head of the Department
b. Member – Senior Academician from outside the department, to be nominated by the Head of HEI
c. Member – A person well versed with anti-plagiarism tools, to be nominated by the Head of the Department

The tenure of the members in respect of points 'b' and 'c' shall be two years. The quorum for the meetings shall be 2 out of 3 members (including Chairman).

(ii) The DAIP shall follow the principles of natural justice while deciding about the allegation of plagiarism against the student, faculty, researcher and staff.

(iii) The DAIP shall have the power to assess the level of plagiarism and recommend penalty (ies) accordingly.

(iv) The DAIP after investigation shall submit its report with the recommendation on penalties to be imposed to the IAIP within a period of 45 days from the date of receipt of complaint / initiation of the proceedings.

B. Institutional Academic Integrity Panel (IAIP)

(i) HEI shall notify a IAIP whose composition shall be as given below:

a. Chairman - Pro-VC/Dean/Senior Academician of the HEI.

b. Member - Senior Academician other than Chairman, to be nominated by the Head of HEI.

c. Member - One member nominated by the Head of HEI from outside the HEI

d. Member - A person well versed with anti-plagiarism tools, to be nominated by the Head of the HEI.

The Chairman of DAIP and IAIP shall not be the same. The tenure of the Committee members including Chairman shall be three years. The quorum for the meetings shall be 3 out of 4 members (including Chairman).

(ii) The IAIP shall consider the recommendations of DAIP.

(iii) The IAIP shall also investigate cases of plagiarism as per the provisions mentioned in these regulations.

(iv) The IAIP shall follow the principles of natural justice while deciding about the allegation of plagiarism against the student, faculty, researcher and staff of HEI.

(v) The IAIP shall have the power to review the recommendations of DAIP including penalties with due justification.

(vi) The IAIP shall send the report after investigation and the recommendation on penalties to be imposed to the Head of the HEI within a period of 45 days from the date of receipt of recommendation of DAIP/complaint / initiation of the proceedings.

(vii) The IAIP shall provide a copy of the report to the person(s) against whom inquiry report is submitted.

10. Conclusion

All students, researchers and faculties need to join hands together to curb the menace of plagiarism. Academic libraries should educate and train the relevant library users about multiple reference management tools, its use, and benefit; aware about different referencing styles; regular organize orientation cum training programmes on plagiarism, strategies for avoiding plagiarism and use of anti-plagiarism software; put plagiarism policies and guidelines on their websites and introduce a course on research ethics in collaboration with faculties. Academic libraries also should run various kinds of information literacy and information use ethics activities and programs. A close and collaborative effort of libraries and faculties will yield fruitful results in this respect.

References

Essom, H. (2016). 10 types of plagiarism in research. Retrieved from https://hub.wiley.com/community/exchanges/discover/blog/2016/02/02/10-types-of-plagiarism-in-research.

Harji, M. B., Ismail, Z., Chetty, N. & Letchumanan, K, (2017). Technical and non-technical programme on students' attitudes and reasons for plagiarism. English Language Teaching, 10(11), 141-155. Doi: 10.5539/elt.v10n11p141.

Klausman, J. (1999). Teaching about plagiarism in the age of internet. *Teaching English in the Two Year College*, 27(2), 209-212.

Satiza, M. & Marti'nez-A'villa, D. (2019). Plagiarism: an essay in technology. *DESIDOC Journal of Library and Information Technology*, 39(2), 87-93.

Simpson, J. & Weiner, E. (1989). *Oxford english dictionary*. Oxford: Clarendon Press.

Singh, R. & Singh, V. (2020). Ethical use of information in digital age: strategies to curb plagiarism. *IASLIC Bulletin*, 65(2), 73-83.

Sprajc, P., Jereb, E., Urh, M., Trivan, D. & Jerebic, J. (2017). Reasons for plagiarism in higher education. *Organizacija*, 50(1), 33-45.

Streans, L. (1998). Copy wrong: plagiarism, process, property, and the law. In L. Buranen, A. M. Roy (Eds.), *Perspectives on plagiarism and intellectual property in a postmodern world* (pp. 30-49). New York: State University of New York Press.

UGC (University Grant Commission. (2018). UGC(*Promoting of academic integrity and prevention of plagiarism in higher educational institutions), regulations, 2018*. Retrieved from https://www.ugc.ac.in/pdfnews/7771545-academic-integrity-regulation2018.pdf.

Webster, M. (1991). *Webster's college dictionary*. New York: Random House.

Worthington, N. M. (2014). *What is plagiarism?* Retrieved from https://www.ecu.edu/cs-acad/writing/wac/upload/Avouding-Plagiarism-PDF.pdf.

LOOK EAST
Vol. 7, No. 1, 2021, pp. 116-132

Free and Open Access Resources for Social Sciences: Redesigning a cost-effective Digital Collection

Laksman Sarkar*

Abstract

Significant changes are taking place in scholarly publication; new approaches to teaching and learning, the rising cost of information, limited budget are all present challenges for a scholar or a researcher. Rapid development of Information and Communication Technologies (ICT) have resulted the explosion of digital information throughout the world. In this situation a researcher or a scholar of a particular subject field or discipline has to require the knowledge of cost-effective sources of digital resources or e-resources. In this paper it has been tried to trace some free and open access resources in the field of Social Sciences in Indian origin as well as global which will also be cost-effective. Some major open access initiatives have been discussed which are very effective in this regards. Here, I have also tried to explain about the Digital Collections, its development, type and advantages.

Keywords: *Digital Collection; Free and open access resources; Open Access Initiatives; Social Sciences*

1. Introduction

The present world is living in an information era which is completely dependent upon the resources and techniques coming through the digital environment. Varieties of services can be obtained from the different libraries and information

*Dr. Laksman Sarkar, Librarian, Rishi Bankim Chandra Evening College, Naihati, North 24 Parganas, West Bengal, India, Pin:743165; E-mail: sarkar12ku@gmail.com

centres which are not restricted to their own resources only. On the other hand, they are available through inter library loan, internet and resource sharing.

Due to information explosion and information revolution we have moved from Industrial Era to Information Era. In the information era the internet especially World Wide Web has revolutionized literally everything in the society. Rapid growth and development of different subjects resulted the production of rush literature. Among this rush literature it is difficult to retrieve the right information for the right user at the right time.

Sociological development, sociological problems and information requirement are co-related. In this changing environment Social scientists face a different perspective in their research field. The high level of intellectual activity can be gauged by the fact that, thousands of scientific and technical periodicals and reports are published each year and hundreds of documentation centres and information centres deal with the fabulous information of the world and try to categories so that anyone working betterment of society. Social science is the scientific study of the human society and social relationship. The ultimate fulfillment of specific needs of the social science researchers is depending on the accessibility to information in specific area. Digital resources are the tremendous effective tools in this respect.

In this paper I have tried to discuss on digital collection with some of free and open access resources related to social sciences which will be helpful to develop the updated knowledge associated with this field.

2. Objectives

Due to increasing cost of digital resources and limited budget no library can acquire all published resources for its collection. So, it is required to aware for any reader about the free and open access resources. The primary objectives of this study are as follow:

- To know the digital collection and its types;
- To know the open access resources; and
- To know the free and open access resources on social sciences.

3. Methodology

To find out and study the related content, different primary sources like research journals, conference proceedings, web sources have been consulted and secondary sources like text books also have been consulted. After the deep and through study of different sources, relevant subject matters have been collected. According to development of subject collected content has been organized and discussed. A conclusion has been made after the detail discussion on the topic.

4. Related Literature Review

Many literatures have been screened on digital collection and identified some related literature. Some authors / researchers have worked on related topics are as follows:

Gangadharaiah, Keshalu & Sheela (2012) in their paper “Digital Collections: development and evolution from Stone Age to Web age” have discussed the development and types of digital collections.

Gangare (2012) in his paper “Quality collection development of digital libraries in the technological era” has discussed the procedure of collection development of digital libraries.

Rajan (2012) in his paper “Digital resources in Pondicherry University Library: A case study” has discussed the Digital collection of Pondicherry University Library.

Naqvi (2014) in his study “Awareness, use,, and impact of electronic information services on the UG and PG students at JNMC Library, AMU, Aligarh, India” has examined awareness and use of electronic information services of the JNMC Library, AMU. As per this study a majority of the students were well aware and used electronic information sources and services.

Singh (2016) in his study on “Usage of electronic resources by faculty members of Doaba College, Jalandhar: a case study” have examined use pattern of the electronic resources by the faculty members of Doaba College. From this study he showed that 100% faculty members are aware and use the electronic resources available in the library.

Ramaswamy (2020) in his study “Free and Open access e-resources for academic learning and research” has described different types of e-resources related to UG and PG courses and from where these e-resources can be retrieved.

Mwantimwa, Mwabungulu & Kassim (2021) have made a study on “Academic staff and researchers’ use of electronic resources in Tanzania”. In their study they have compared the use of electronic resources by the academic staff and researchers of different universities across Tanzania. They have also found that open access resources used more than subscribed resources by the academic staff and researchers of different universities.

5. Scope of the Study

The present study will cover the subjects belongs to Social Sciences areas only and will focus free and open access e-resources only. Some e-resources with least cost will come into discussion also.

6. E-resources and Collection Development

E-resource means resource in digital format and disseminate in Electronic way. With the digitization of books, documents, journals and other forms of material, modifications of policies would take place. Overall the policy set for printed materials could be modified accordingly. As builders of collections, librarians now have a larger and more complex set of resources from which to select. These resources range from analogue versions of books, journals, to digital versions of these in a variety of formats such as CDROM, DVD, to online digital e-journals, e-books and online databases. Resource sharing and document supply would have to be rethought keeping in mind for the availability of digital resources. Collection development of e-resources will incorporate new challenges and concerns like site licensing, copyright issues, and provision of access to e-resources. There are several other challenges in collection of e-resources, viz.: complicated procurement, technological obsolescence, preservation systems, non-compatibility of organizational culture to digital environment, security library environment, to determine the reliability and authenticity of resources (Kaur & Satija, 2007).

7. Development of Digital Collections

The following Methods are used for developing digital collections:

i) Scanning of existing collections;

ii) Direct creation;

iii) Procuring e-publication like e-books and e-journals;

iv) Downloading through Internet using popular website databases;

v) Through consortia-based subscriptions; and

vi) Subscribing CD/DVD collections.

8. Types of Digital Collections

With the increasing demands of users of digital information the librarians are acquiring digital resources to facilitate their users. The usability of digital collection is increasing day by day as they provide rapid, easy and seamless access to information to anyone from anywhere. The digital collection may be of following types:

E-books: These are the electronic representation of traditional books. It can be accessed through the internet and can be saved on external devices like CD, DVD, Pen drive, etc. It is also known as a digital book. It can read through a computer or other digital devices.

E-Journals: Periodicals which are published in electronic format on the internet are known as E-Journals. It maintains several periodicities such as weekly, fortnightly, monthly, quarterly, half yearly, annually, etc. E-Journal means to -

i) Electronic version of a print journal like Annals of Library and Information Studies (ALIS)

ii) Only electronic version journal like D-Lib magazine.

iii) Converted format from print to electronic and print version has stopped.

Electronic Database: The database is a collection of interrelated data stored together systematically without harmful or unnecessary redundancy to serve one or more application in at optional fashion. When it is accessible through the internet, it is called online database. The data are stored in such a fashion that they are independent of the programme of people using the data. There exist two types of database – Bibliographic (such as SCOPUS) and full text (such as JSTOR).

Other Electronic Materials: Beyond the above types of digital materials there exist E-newsletters, E-reports, E-theses and Dissertations (ETD), and Institutional Repositories (IR) (Arora, 2015).

9. Advantages of Digital Collections

The advantages or benefits of digital collections are enumerated below:

i) Minimizes space, time and cost of maintenance at the longer run.

ii) Easy storage.

iii) The data can be easily manipulated at regular intervals and can be kept always up-to-date.

iv) Powerful searching tools for instant access and downloading of information.

v) Multiuser and allows simultaneous information retrieval.

vi) Access from anywhere and in any time.

vii) Free from theft, binding and repairing tensions.

viii) Provide information with multimedia features.

10. Free and Open Access Resources

Awareness about the sources of the Free (copyright free) and Open Access Resources can discoverthe fabulous amount of literature. Researchers and subject experts should have the knowledge on different types of Open movements like Open Source Software, Open Content, Open Educational Resources, Open Access Subject Gateways, Open Textbook Library, Open Online Learning Tools, etc.

According to Budapest Open Access Initiative (2002) to enrich education and accelerate research world-wide electronic distribution of the peer reviewed journal literature should be freely accessible online by all scholars, teachers, students, scientists and other curious minds. It would be share the learning of the rich with the poor and the poor with the rich, and make this literature as useful as it can be. This kind of free and unrestricted online availability which we call open access gives readers the extraordinary power to find and make use of relevant literature. It also includes any non-reviewed preprints that they might wish to put online for comment on to alert colleagues to important research findings. By "Open access" to this literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these literatures, pass them as data to software or use them for any other lawful purpose without financial, legal, or technical barriers (Budapest Open Access Initiative, 2002).

Open Access (OA) knowledge systems may broadly be divided into following categories:-

a) Gold OA: Journal based Open Access Publishing, where publisher provides free and immediate access to the full-text of the journal;

b) Green OA: Repository based open access of pre or post-print of articles or open self-archiving, by authors;

c) Hybrid OA: A subscription-based journal where some article are open access and some are pay based;

d) Bronze OA: Delayed open access and free to read (that has no open license) on Publisher's website;

e) Diamond or Platinum OA: Open access journals that are free to authors and free to the readers and usually sponsored and published by non-profit societies, Institutions or associations. (*Georgia State University Library*, 2022).

f) Black OA: Black open access refers to illegal open access. (*Open Access Astralasia, 2022*)

Another important advancement is the recent development of "open learning information systems" which provides free access to the shared repository of learning resources. Resources can be used locally via a virtual Learning Environment (VLE), Learning Management System (LMS) or intranet. These systems offer web-enabled repository of learning resources for use by teachers, students and support staffs across the globe. For example, IGNOU developed learning repository for its course materials for different disciplines available through e-Gyankosh (www.egyankosh.ac.in) for free of cost (Mukhopadhyay, 2013).

11. Some Major Open Access Initiatives

There are so many Open Access sources are available in India as well as throughout the world on different subjects through which researchers can retrieve their required information for their knowledge development on respective subject for free of cost. Some of the major open access initiatives are as follows:

Open Access Journals: It is a golden route for providing free access (without any restrictions and charge) to peer-reviewed electronic literature. For example, The Directory of Open Access Journals (DOAJ - http://doaj.org) lists open access journals under different subject groups. As on 30th December, 2021 DOAJ indexed 17305 journals in 80 languages from 130 countries.

INSSPEL Database: This Indian Social Science Periodical Literature (INSSPEL) database was developed by NASSDOC, ICSSR. Earlier INSSPEL database covered only Economics and Political Science periodicals, but current one will be exhaustive. It includes the Indian journals which are under UGC-CARE List, journals subscribed by NASSDOC, and ICSSR suggested journals. The total number of bibliographic records up to December 29, 2021 is 97491. The service will largely benefit the researchers who are pursuing the social science research on India or in India. At present, anyone can access this database upon his/her registration (http://14.139.53.196/ojs/index.php/index/insspel).

EBSCO Database of NASSDOC: EBSCO is a multidisciplinary database contains full-text journals on Economics, Education, Humanities, Library and Information Science, Political science, Sociology, etc.EBSCO's Open Access eBook collection provides researchers the ability to access thousands of open access eBook titles across hundreds of topics/subject areas via EBSCO host or EDS. It is ideal for academic purposes (https://www.ebsco.com).

JSTOR: JSTOR is an online archival database, providing access to full text journal articles from more than 2600 academic journals and scholarly content. The contents are provided by more than 1200 publishers in 75 disciplines from more than 57 countries. Because of JSTOR's archival mission, there is a gap from 1-5 years between the most recently published journal issue and the back issues available in JSTOR. The most recent 3-5 years are generally unavailable. The subjects covered are: Economics, Political Science, Social Work, Sociology and Criminal Justice, Geography, Education, Psychology, Asian Studies, Public Policy, Library Science, Population Studies, Management, Business, Marketing and Finance, Public Affairs, History, etc (https://www.jstor.org).

J-Gate: J-Gateis an electronic gateway to global e-journal literature. Launched in 2001 by Informatics India Limited, J-Gate provides seamless access to millions of journal articles available online offered by 12210 Publishers. NASSDOC acquiring journal literature, indexed from 19500 journals from Social science and Humanities Collections till 29th December, 2021 with links to full text at publisher sites. Coverage of over 57 lacks articles with back files for majority of them from 2001 onwards and in some case of some publishers starting from their first issue also (https://jgateplus.com).

Journals for Free: Journals for Free is a directory of open access journals and journals with some kind of open access to their materials.Journals for Free has now more than 17,000 open access journals, what makes it the world's most complete list of its kind (http://www.journals4free.com/about.jsp).

MDPI: It is a pioneer in scholarly, open access publishing; MDPI has supported academic communities since 1996. Based in Basel, Switzerland, MDPI has the mission to foster open scientific exchange in all forms, across all disciplines. MDPI publishes over 85 journals that are ranked as high impact within their fields. Journals published by MDPI are fully open access: research articles, reviews or any other content on this platform is available to everyone free of charge (https://www.mdpi.com/about).

Asian Review of Social Sciences (ARSS): Asian Review of Social Sciences (ARSS) is another important Indian journal for social sciences scholars. It is a double-blind peer-reviewed international journal published half-yearly. ARSS publishes original papers, empirical research, case studies, literature review, conceptual framework, analytical and simulation models, technical notes, and book reviews.The journal attracts the attention of not only researchers and academicians but also academic institutes, Managers, Consultants, Directors, Lawyers, Librarians, Sociologists, Economist, politicians, Journalists, Psychiatrists, Administrators, Social Researchers, and all the students in the Social Science Discipline (https://ojs.trp.org.in/index.php/arss/home).

The Indian Economic and Social History Review: The Indian Economic and Social History Review is a popular and core journal in the field of social sciences in India. It is meeting ground for scholars whose concerns span diverse cultural and political themes with a bearing on social and economic history. The Indian Economic and Social History Review is the foremost journal devoted to the study of the social and economic history of India, and South Asia more generally (http://14.139.53.196/ojs/index.php/ieshr/about).

The journal publishes articles with a wider coverage, referring to other Asian countries but of interest to those working on Indian history. Its articles cover India's South Asian neighbours so as to provide a comparative perspective. Issues are periodically organized around a specific theme as a special number. The journal's principal features are research articles, substantial review articles and bibliographic surveys, which also cover material available in Indian languages, as a special feature.

Economic and Political Weekly (EPW): The Economic and Political Weekly popularly known as EPW is a unique journal published from Mumbai since 1949 in a frequency of weekly. It is the only social science journal of its kind in the world. It is unique in that every week it publishes analysis of contemporary affairs side by side with academic papers in the social sciences (https://www.epw.in).

Social Sciences & Humanities Open

Social Sciences & Humanities Open is an exciting new multidisciplinary, open access journal (https://www.journals.elsevier.com/social-sciences-and-humanities-open).

e-PGPathshala: It is an initiative of the Ministry of Human Resource and Development (MHRD), Govt. of India under its National Mission on Education through ICT (NME-ICT) executed by the UGC for development of curriculum-based e-contentin 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural and mathematical sciences, linguistics and languages. Through this project users can search 20000+ e-texts and 19000+ videos till today. The content and its quality is the key component of this project (https://epgp.inflibnet.ac.in).

Sodhganga: Sodhganga is a digital repository of Indian electronic Theses and Dissertations submitted by the Indian Universities with an aim to facilitate open access to Indian Theses and Dissertations to the academic community world-wide. It is maintained by INFLIBNET Centre, Gandhinagar, Gujarat which is an autonomous Inter-University Centre of the UGC. As on 30th December, 2021 the number of submitted theses in this digital reservoir is 3,33,333 and synopses is 8395 from 513 Universities all over the India (https://shodhganga.inflibnet.ac.in/).

Sodhgangotri : Sodhgangotri is a digital repository of electronic version of approved synopsis deposited by research scholars / research supervisors in universities which are already submitted to the universities for registering themselves for the Ph. D. programmes. It reveals the trends and directions of research being conducted in Indian universities. It also helps to avoid the duplication of research work. It also maintained by INFLIBNET Centre, Gandhinagar, Gujarat (https://shodhgangotri.inflibnet.ac.in/).

Swayam : Swayamis a common platform initiated by the Government of India to take the best teaching learning resources to all, including the most disadvantaged. It seeks to bridge the digital divide for students who have remained uneducated by the digital revolution and have not been able to join the mainstream of the knowledge economy (https://swayam.gov.in/).

It facilitates the students of all courses taught in classroom from class IX to PG to be accessed by anyone, anywhere at any time at free of cost to the residents in India. More than 1000 specially chosen faculty and teachers from across the country have participated in preparing these courses. In order to ensure best quality content are produced and delivered, seven National Coordinators have been appointed: they are NPTEL, UGC, CEC, NCERT, NIOS, IGNOU and IIMB.

Swayam Prabha: Another high-quality teaching-learning e-resource is the Swayam Prabha which is a group of 22 DTH channels devoted to telecasting of educational programmes on 24X7 basis using the GSAT-15 satellite maintained by INFLIBNET Centre. Every day, there will be new content for at least (4) hours which would be repeated 5 more times in a day, allowing the students to choose the time of their convenience. The channels are uplinked from BISAG-N, Gandhinagar. The contents are provided by NPTEL, IITs, UGC, CEC, IGNOU. At present there exist 34 channel and 502668 no of titles (https://www.swayamprabha.gov.in/index.php/).

INFOPORT: A subject Gateway for Indian Electronic Resources

It is a subject gateway developed by INFLIBNET, Ahmedabad of Indian scholarly content scattered over the Internet. It selectively catalogues online resources of Indian origin on different subjects available in open access. In the process of identification and selection of resources it collaborates with Librarians and scholars of different colleges and universities. The subjects Infoport classified according to Dewey Decimal Classification, indexed subject wise and arranged alphabetically subject wise (https://infoport.inflibnet.ac.in).

Institutional Repositories

It is a web-based archive of scholarly materials designed to organize and provide seamless access to scholarly publications produced by faculty or researchers of an institution in all subject disciplines. There are 4597 world-wide repositories (as on 21stDecember, 2021) indexed by Registry of open Access Repositories (ROAR) among which 122 repositories are Indian. (Available at http://roar.eprints.org) (Hosmani & Trivedi, 2015). Directory of Open Access Repositories (openDOAR) has also indexed 5693 repositories (as on 21st December, 2021) through the world-wide (available at http://opendoar.org).

Electronic Books

It is the electronic version of a printed book which can be read on a computer or on an electronic device. Directory of Open Access Books (DOAB-http://www.doabooks.org) as on 21st June, 2021 listed 43,172 peer reviewed books from 622 publishers from all over the world. Digital Library of India (Bangalore) listed 550603 titles as of 2016 (http://www.dli.ernet.in).

Open Textbook Library: It is another digital library (915 books only) for Textbooks on different subjects can use for free of cost. It is licensed by Publishers and authors for free use (free download and print) (https://open.umn.edu/opentextbooks).

World Digital Library: It is a project of the Library of Congress, (USA) launched in 2009 and it is a World Wide collection of 19147 items of 193 countries. It is a collection of books, manuscripts, newspapers, maps, journals, photographs, audios and videos (https://www.wdl.org).

Beyond the above open access initiatives Ministry of Human Resource Development, Govt. of India launched **National Digital Library of India** project in 2006 to provide full-text of different literature on different subjects. The headquarter of NDLI is IIT, Kharagpur. This Library was dedicated to the nation on June 19, 2018. It is a digital collection of books, articles, audio books, videos, lectures, question papers, fictions and so on in Indian languages. Anyone can register and access its collection for free of cost. As on April, 2022 NDLI hosts 81761152 resources in different form which are available for use (http://ndl.iitkgp.ac.in).

National Virtual Library of India (NVLI) project funded by National Mission of Libraries (NML), Ministry of Culture provides free access to rare documents (including manuscripts, textbooks, and other types of documents.) for all students and faculties (http://indianculture.gov.in).

The Government of India has initiated different e-learning platform to promote higher education in India. They are: e-SodhSindhu, ePGPathshala, E-Gyankosh, Vidya-mitra, Shodhganga, Shodgangotri (http://inflibnet.ac.in). Without this some other significant portals are: G Suit for Education (https://edu.google.com/intl/ALL_in/products/workspace-for-education/education-fundamentals/), Internet Archive (archive.org), Open Library (openlibrary.org), Moodle (moodle.org), NPTEL (National Programme on Technology Enhanced Learning) (https://nptel.ac.in), etc. West Bengal Public Library Network (http://www.wbpublibnet.gov.in).

11. Conclusion

Due to rapid development of the ICT huge numbers of digital resources are increasingly published commercially or with the support of different Governments in such a way which are difficult to control and organize. The use of e-resources in digital environment becomes more apparent when information is more readily available in the digital format. In this regard Information users including Library professionals have to aware about new technologies, new published digital resources, different free or open sources and services which are available in online mode sustainable for their institutions.Different government and governmental institutions provide more and more resources available in the digital format through their portals and the library professionals can take advantages of these digital resources to offered handed flexibility in view of user requirements. Libraries can develop their collections with the use of this portal and thus making them easily accessible to the users. The efforts of collection development become futile if the users do not possess the required skills to make use of the e-resources at their disposal, and the same is true if the library staff do not extend required assistance to the users at the right time in the right manner.

References

Arora, R. (2015). *Sources for current information: an overview*. Available at:http://epgp.inflibnet.ac.in (access on 26th December, 2021).

Asian Review of Social Sciences. (2021). Retrieved from https://ojs.trp.org.in/index.php/arss/home

Budapest Open Access Initiative. (2002). Retrieved from http://www.soros.org/openaccess/read (access on 26th December, 2021).

Digital Library of India. (2002). Retrieved from http://www.dli.ernet.in

Directory of Open Access Books. (2012). Retrieved from http://doabooks.org

Directory of Open Access Journals. (2003). Retrieved from http://doaj.org

Directory of Open Access Repositories. (2005). Retrieved from http://opendoar.org

EBSCO database. (2005). Retrieved from https://www.ebsco.com

Economic and Political Weekly. (2021). Retrieved from https://www.epw.in

e-Gyankosh. (2021). Retrieved from www.egyankosh.ac.in

e-PG Pathshala. (2021). Retrieved from https://epgp.inflibnet.ac.in

Gangadharaiah, G., Keshalu, P. & Sheela, V. (2012). Digital collections: Development and evolution from Stone age to Web age. In Dong-Geun Oh (Ed.), *International conference on collection development in the digital environment: proceedings* (pp.35 – 38).Chennai: University of Madras.

Gangare, M. B. (2012). Quality collection development of digital libraries in the technological era. In Dong-Geun Oh (Ed.), *International conference on collection development in the digital environment: proceedings* (pp.55 – 57). Chennai : University of Madras.

Georgia State University Library. (2022). *Open Access: Types of open access.* Retrieved from https://research.library.gsu.edu/c.php?g=115588&p=754380

G-Suit for Education. (2021). Retrieved from (https://edu.google.com/intl/ALL_in/products/workspace-for-education/education-fundamentals/

Hosmani. H. G. & Trivedi, K. (2015). *Open access and digital library*. Retrieved from http://epgp.inflibnet.ac.in

The Indian Economic and Social History Review. (2021). Retrieved from http://14.139.53.196/ojs/index.php/ieshr/about

Indian Social Science Periodical Literature Database. (2002). Retrieved from (http://14.139.53.196/ojs/index.php/index/insspel)

INFOPORT. (2021). Retrieved fromhttps://infoport.inflibnet.ac.in

Internet Archive. (2021). Retrieved from https://archive.org

JSTOR. (2021). Retrieved from https://www.jstor.org

Journals for Free. (2021). Retrieved fromhttp://www.journals4free.com/about.jsp

J-Gate. (2021). Retrieved fromhttps://jgateplus.com

Kaur, S. & Satija, M. P. (2007). Collection development in digital environment: trends and problems. *SRELS journal of information management*, 44(2), 139 – 155.

MDPI. (1996). Retrieved from https://www.mdpi.com/about

Moodle. (2021). Retrieved from https://moodle.org

Mukhopadhyay, P. (2013). Course of action: Courseware on library information technology. Kolkata: Prova Prakashani.

Mwantimwa, K., Mwabungulu, E. M. & Kassim, M. (2021). Academic staff and researchers' use of electronic resources in Tanzania: A comparative study. *The International Journal of Education and Development using Information and Communication Technology*, 17(2), 55–75. Retrieved from https://www.researchgate.net/publication/351282612

Naqvi, T. H. (2014). Awareness, use, and impact of electronic information services on the UG and PG students at JNMC Library, AMU, Aligarh, India. *World*

Digital Libraries, 7(2), 107 – 122. Retrieved from https://content.iospress.com

National Digital Library of India. (2006). Retrieved from http://ndl.iitkgp.ac.in

National Programme on Technology Enhanced Learning. (2021). Retrieved from https://nptel.ac.in

National Virtual Library of India. (2021). Retrieved from http://indianculture.gov.in

Open Access Astralasia. (2022). Retrieved from https://oaaustralasia.org/2021/05/25/what-are-the-different-types-of-open-access/

Open Library. (2021). Retrieved from https://openlibrary.org

Open Textbook Library. (2021). Retrieved from https://open.umn.edu/opentextbooks

Rajan, V. R. (2012). Digital resources in Pondicherry University Library: A case study. In Dong-Geun Oh (Ed.), *International conference on collection development in the digital environment: proceedings* (pp.321 – 325). Chennai: University of Madras.

Ramaswamy, K. (2020). *Free and Open access e-resources for academic learning and research*. Retrieved from https://researchgate.net. (Access on 26th December, 2021).

Registry of Open Access Repositories (ROAR). Retrieved from http://roar.eprints.org

Singh, J. (2016). Usage of electronic resources by faculty members of Doaba College, Jalandhar: a case study. *World Digital Libraries*, 9(2), 111 – 119. Retrieved from DOI: 10.18329/09757597/2016/208

Social Sciences & Humanities Open. (2021). Retrieved from https://www.journals.elsevier.com/social-sciences-and-humanities-open

Sodhganga. (2021). Retrieved from https://shodhganga.inflibnet.ac.in/

Sodhgangotri. (2021). Retrieved from https://shodhgangotri.inflibnet.ac.in/

Swayam. (2021). Retrieved from https://swayam.gov.in/

Swayam Prabha. (2021). Retrieved from https://www.swayamprabha.gov.in/index.php/

West Bengal Public Library Network. (2021). Retrieved from http://www.wbpublibnet.gov.in

What are the different types of open access? Retrieved from https://oaaustralasia.org/2021/05/25/what-are-the-different-types-of-open-access/

World Digital Library. (2021). Retrieved from https://www.wdl.org