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Aims and Scope

IPE Journal of Management is a bi-annual, peer-reviewed journal which publishes empirical, theoretical and review articles dealing with the theory and practice of management. The aim of the journal is to provide a platform for researchers, academicians, practitioners and policy-makers from diverse domains of management to share innovative research achievements and practical experience, to stimulate scholarly debate both in India and abroad on contemporary issues and emerging trends of management science and decision-making.

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New India 2022: Challenges for Central Public Sector Enterprises

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Abstract

Central Public Sector Enterprises (CPSEs) are an inseparable part of the process and dynamics of economic development in India. CPSEs contributed Rs 151.84 lakh crore to GDP at current prices in 2016-17[1]. Their contribution to the surge in economic growth has been phenomenal. There is hardly any area of economic activity where these enterprises have not marked their presence. They continued to dominate the socio-economic scenario of the country irrespective of the political ideology ruling the country. They have stood taller than the debate about the old and new economy industries. The globalized world is dominated by market force which requires an enterprise to have its deeper understanding in terms of product, place, channel, and price. The purpose of this paper is to study the present and futuristic scenarios of CPSEs and elucidate how CPSEs are transforming to a new path ie New India 2022 to meet the global competition, benchmarking best practices and aligning with national priorities.

Keywords: Competition, CPSEs, Reforms and Restructuring, Corporate Governance

CPSEs Sustaining Growth

Public Enterprises Survey 2016-17, provides highlights of the performance of Central Public Sector Enterprises (CPSEs) which are spread over length and breadth of the country. Table-1 depicts the phase-wise reforms process in CPSEs in India.

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1   Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, GoI, pg 7

Table 1: Phase-wise Reform Process

SOE reforms process	Time period	Key reforms
Phase 1: Industrial Policy Reforms	1991-1996	• "De-Reservation" Involving Liberalization Of Hitherto Closed Sectors Dominated By State Monopolies • "Disinvestment" Involving Limited And Partial Sale Of Government Shares • "Memoranda Of Understanding A Performance Evaluation System, Expanded
Phase 2: Empowerment of SOEs	1996- 1998	• Operational autonomy granted to very large SOEs • Professionalisation of the "Board of Directors" in PSEs • "Disinvestment Commission"
Phase 3: Cold Privatization	1998-2004	• More open privatization policies made apparent through: • The buy-back and cross holding of some shares • Downsizing, restructuring and professionalisation of PSEs and governing boards
Phase 4: Ideology based reforms	2004-2014	• Cautions attitude to privatization driven by political considerations • Corporate guidelines for SOEs introduced
Phase 5: Ongoing Reforms	2014-till date	• Unlocking capital • Reforms in CG • Creating Wealth for Citizens • Social-Connect

Source: Compiled from various Public Enterprise Surveys

As on 31st March 2017, 331 CPSEs have a total investment of Rs. 12,50,373crore with a net profit of Rs 1,27,602 crore. The macro performance of CPSEs in India is depicted in Table-2:

Table-2: Performance Highlights of CPSEs in India during 2016-17

Financial parameters	Amount (Rs in crore)	% (change from previous year)
Total Paid-up Capital in 331 CPSEs	233112	13.84
Total Investment	1250373	7.70
Capital Employed	2174120	5.56
Total Gross Revenue from Operation	1954616	6.54
Total Income	1821809	3.26
Net Profit	127602	11.70
Reserves and Surplus	923747	2.81
Contribution to exchequer	385579	39.78
Foreign exchange earnings	76644	14.32
Market capitalization	1776235	3724

Source : Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, GoI

Current Scenario

One of the major challenges faced by PEs is to continuously reinvent as organization of relevance in the changing global scenario and to sync them with national priorities, policies and goals. To excel, the following internal and external factors were identified.

Internal Factors	External Factors
Vision Mission	Corporate Governance
Decentralized decision making	Competitive market strategy
Autonomy and accountability	Customer satisfaction and benchmarking
Reforms and restructuring	Interfacing capital markets

Vision and Mission: A vision statement is the anchor point of any strategic plan. It outlines what an organization would like to ultimately achieve for the existence of the organization. A good vision statement should be short, simple, specific to the business, leave nothing open to interpretation, and should have ambition. The process of preparing the vision and the mission would integrate the personnel, culture and ethos in the organization. Aligning the objective and functions with vision document is a key challenge for CPSEs.

Capital Markets: The Government on its part is considering to make listing of PEs on stock exchanges necessary – may be in the initial run only few enterprises which are profit making and are also competitive in nature. The market capitalization of public enterprises is increasingly substantially. 50 CPSEs are listed in the capital markets with a market capitalization of Rs17,76,235 crore in 2016-17 which is more than 37.24 percent from the previous year.

Reforms and Restructuring: It is interesting to mention that as a part of reform and restructuring exercise, the merge of Air India and Indian Airlines, Rashtriya Ispat Nigam Ltd and Steel Authority of India Ltd and Oil Group Companies is being considered. The Indian Post is an excellent example of restructuring to come back with a big bang to take on private and international couriers.

Corporate Governance: The toning up of the corporate governance function could help CPSEs a great deal in brand building, business promotion, employees, legal institutions, etc. The application of Clause 49 of the Securities Exchange Board of India (SEBI) Code is a point in reference.

Box 1 : Evolution of Corporate Governance
- CII Code on Corporate Governance, 1998
- National Code on Corporate Governance, 1999
- SEBI Listing Clause 49, 2000
- Chandra Committee on Auditing and Governance, 2002
- OECD Principles, 2002
- Voluntary Guidelines on CG, 2009
- DPE Guidelines on CG, 2010
- Companies Bill, 2012
- Companies Act, 2013
- SEBI – Listing Obligations and Disclosure Requirement Regulation, 2016, 2018

Autonomy and accountability: Maharatna, Navratna and Miniratna classification has given autonomy and accountability for the CPSEs to create their own wage structures, efficiency driven, performance oriented, and linked with production and productivity, etc.

Customer satisfaction benchmarks: Customer loyalty has become an integral part of competitive market strategies. PEs in different cognate groups in the category of producing and service rendering enterprises do not benchmark the customer satisfaction with their counterparts in private sector and multinational firms.

Competitive market strategies: The output orientation and captive market have kept these enterprises alienated from the market. In terms of pricing, CPSEs have to vary the line and length from time to time choosing from a basket of pricing policies. Discounts may have to be offered to win market share. There are only 50 CPSEs listed traded on the stock exchanges as on 31.03.2017. The total market capitalization (M-Cap) of 50 CPSEs based on stock prices on BSE and NSE as on 31.03.2017 stood at Rs 1,776,234.54 crore increased from Rs 1,294,245.15 crore as on 31.03.2016 (increased by 37.24%)[2]. CPSEs constitute 9.16% and 9.28% of the total market capitalization of companies listed at BSE and NSE respectively[3].

Futuristic Scenario

The vision 2022 document called for a transformative change in the function of CPSEs meeting the futuristic challenges and align them with national priorities. CPSEs to redefine the role and functioning, to achieve futuristic challenges have focused on four themes[4]. The four transformative changes along with the sub-themes are detailed below:

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2   Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, GoI, p 26
3   https://dipam.gov.in/ (as on 10th September 2018)
4   'Vision New India 2022, Re-defining Role and Functioning of CPSEs' on April 09, 2019

Theme	Transformative Change	
1	Corporate Governance in the new age	• Challenges holding CPSEs back • Vision and Goals • Improving performance of CPSEs • Role and contribution of Govt nominee directors • Promotion of flagship scheme
2	People first – reinventing human resource management	• Sharing best practices • Review HRM policies • Young minds in business • CSR
3	Financial re-engineering	• Consolidation of CPSEs • Promoting efficiency and better financial management • Promotion of micro and small enterprise
4	Innovation, R&D and technology for the future	• Export promotion, import substitution • Roadmap for upgradation of technology • Common research center • Digital india

Source: Compiled from Vision New India 2022) April 09, 2018

Corporate Governance in the new age: Corporate Governance has been one of the fast growing concepts in improving the enterprise performance in India. DPE introduced the Guidelines on Corporate Governance for CPSEs, mandating enterprises to follow the norms. These Guidelines are applicable to all CPSEs and cover issues like composition of Board of CPSEs, Audit Committee, Remuneration Committee,Subsidiary Companies, Disclosures, Code of Conduct and Ethics, Risk Management and Reporting,monitoring the compliance of Guidelines by the CPSEs. Corporate Governance is dynamic in nature and hence they are modifying the Guidelines from time to time aligning to the national priorities. The introduction of CSR in Companies Act mandating CPSEs exceeding the threshold limits to contribute at least two percent of the average net profit of three immediately preceding years is an important step. During 2016-17, 129 CPSEs have spent Rs 3,336.50 crore on CSR activities out of the allocated amount of Rs 4933.10 crore. Out of 129 CPSEs which are qualified to spend under CSR, 40 per cent of the companies could not spend 50 percent of the amount allocated for CSR[5].

People first – reinventing human resource management: HRM is a holistic approach towards management of people resources present in an organization which contribute to the achievement of organizational objectives. HR strategies evolve round the HR systems and practices that should be aligned with the objectives of the organization. Effective utilization of human resources has special significance in the management of enterprises. They are around 3.70 lakhs of

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5   Public Enterprise Survey 2016-17, Vol.1, Department of Public Enterprise, GoI,, pp 160-162

managerial and supervisory cadres employees working in CPSEs[6]. It is a challenge to manage them efficiently and utilization of their skills to the maximum capacity. Enterprises are aimed to build competency, organizational culture, systems and process to increase productivity through efficiency and quality. Integrating HR with technology has helped to strengthen the HR systems in CPSEs in effective delivery and value addition services. HR Management System in PowerGridis a web-based system enabling the enterprises to go online the HRD process, TNA capturing, smart profiling, training history, smart scheduling and updating, e-Communication and SMS integration, smart uploading facilities for modules and study material and feedback and smart reporting. ICON is an initiative at BHEL which is a social networking for employees. The portal provides greater opportunities to employees for collaboration, information sharing, faster communication and disseminate. The portal provides a platform for top management to directly interact with all employees.

Financial re-engineering: Sickness in CPSEs include old and obsolete plant and machinery, outdated technology,low capacity utilization, low productivity,poor debt–equity structure, excess manpower, weak marketing strategies,stiff competition, lack of business plans,dependence on Govt. orders, heavy interest burden, high input cost, resource crunch,etc. Administrative Ministries and concern departments are responsible to monitor sickness of CPSEs and timely suggest redressal measures with the approval of the competent authority. Financial re-engineering is a tool aiming to overcome sickness in CPSEs through better financial management practices, merger, holding companies to manage CPSEs at arm's length from government and corporatizing statutory agencies. To improve efficiency among enterprises, new initiatives including consortium among enterprises was formed to bid and attract global tenders and logistic aggregation through Government e-Market portal (GeM), etc. HSCC and EPIL are two CPSEs which are likely to be the first set of state-owned firms which will be merged with their peers in the current fiscal year[7].

Innovation, R&D and Cyber security: R&D prescribing therein that Maharatna and Navratna companies should invest at least one per cent of their profits after tax (PAT) in R&D and Miniratna and other should earmark 0.5 per cent of their PAT for R&D operations. R&D expenses in CPSEs have improved from 76.18 percent to 113.03 percent in the current financial year ie 2016-17. CPSEs have setup in-house R&D facilities and are also undertaking the sponsored research through collaboration with Universities and reputed R&D institutions. Awareness of Intellectual Property Rights(IPR) and 'patenting 'of new knowledge gained and discoveries made in the process of R&D are been promoted by National Research Development Corporation (NRDC), an enterprise engaged in promoting, developing and commercializing technologies, knowhow, patent and processes generated through national R&D. Cyber Security is protecting our cyber space (critical infrastructure) from attack, damage, misuse and economic espionage.

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6   Public Enterprise Survey 2016-17,Vol.1, Department of Public Enterprise, GoI,. p 151

7   https://economictimes.indiatimes.com/industry/services/consultancy-/-audit/hscc-epil-in-advanced-stages-for-merger-with-similarly-placed-cpses-official/articleshow/64697288.cms

Cyber Intrusions and attacks have increased dramatically over the last decade, exposing sensitive personal and business information, disrupting critical operations, and imposing high costs on the economy. The various protective measures that are considered to protect enterprises from cyber-attacks includes Viruses (1990s) Anti-Virus, Firewalls Worms (2000s) Intrusion Detection & Prevention Botnets (late 2000s to Current) DLP, Application-aware Firewalls and SIM APT, etc. The Innovation Action Plan has been prepared to promote global competitiveness, growth orientation in major sectors such as automobile and capital goods[8].

Conclusion

To conclude, CPSEs could perform better by superior inter-PEs collaboration, regulation, improved corporate governance, linking with capital markets, improved resource use, upgraded labour efficiency, innovation and R&D, honing their competitiveness through building up enterprise specific ethos and cultures. CPSEs has to pay attention to improve service delivery mechanisms, customer satisfaction, pricing, reforms and restructuring, stressed assets in CPSEs, reducing accumulated losses and increasing the number of profit making enterprise, improving the economic returns for stakeholders, etc. Maharatna CPSEs could aim to be among the fortune 500 companies. Start-up India is an important schemes wherein CPSEs could collaborate by setting up incubators cells. Decentralization and delegation supported by technology could leap forward CPSEs to un-scaled peaks.

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8   Order no. 13(1)/2014-O&M, dated 22nd May 2015, Government of India, Ministry of Heavy Industries and Public Enterprise, Department of Heavy Industries

Cross-border Mergers and Acquisitions, Integration of Firms and Human Resource Management Issues: Some Reflections

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Abstract

Cross border mergers and acquisitions are frequently found in international business. Since 1980s, the tendency has increased many folds. However, not all the cross-border mergers and acquisitions have been successful in integrating the entities and to achieve the desired results. Different scholars have studied different aspects of such cross-border mergers and acquisitions and have commented on the national orientation aspects of the parent organizations in cross-border mergers and acquisitions. Significant studies have also been found on the restructuring at national level and the legacy of distinctive national systems in effecting such integrations. Political dimensions through power equations and importance of the roles of HR functions in shaping the cross-border mergers and acquisition policies have also been discussed in brief.

Keywords: Cross-Border Mergers and Acquisitions, National Orientation, Parent Organizations, National Level Restructuring, Distinctive National System, Political Dimensions

Introduction

Cross-border mergers and acquisitions (M&As) are of concern to those interested in international human resource management. The process of merging two firms, whether they be from different countries or not, raises a number of human resource issues. For example, the details of the merger and its likely implications for employees must be communicated; management must decide on the extent to which it will seek to integrate pay and benefit policies; and the employment

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consequences of the restructuring that follows most mergers must be confronted. The impact and consequences of a merger or acquisitions, particularly the nature of restructuring, depends in large part on their rationale for it and the context in which it takes place. For example, a merger based on adverse trading conditions, overcapacity and the desire to cut costs is much more likely to lead to large scale redundancies than ones based on an expansion into new markets. The impact and consequences of cross-border mergers and acquisitions are also likely to be strongly shaped by national effects. These national effects show up in two ways in cross-border mergers and acquisitions. The first effect is seen in terms of the orientation of the parent or larger firm in the merger, something which can be termed as the 'country of origin' effect. The second effect can be seen in the way the HR issues are handled differently at national level, or the 'host country effects'.

The National Orientation Aspects of the Parent Organizations in Cross-Border Mergers and Acquisitions

One of the key issues facing a firm that has been created through a cross-border merger is the extent and process of integration between the two firms. One pressure to integrate comes from the incentive to present a uniform face to global clients. In some service industries, such as management consulting, and in some manufacturing industries, such as automotive components, firms are selling principally to other MNCs requesting a service or product that has few differences across countries. This necessitates the firm standardizing many aspects of its own operations, including HR issues such as work organization, training and service delivery. In other cases, cross-border mergers and acquisitions are justified to shareholders on the basis that they will allow significant cost cutting to take place. This requires the merged firm to remove duplicate functions and shed excess capacity, another force towards integration. A further reason why merged firms will look to integrate their HR policies across borders is that this will promote the mobility of staff across the company. Standard pay scales and benefits policies, at least for managerial and professional workers, are one way of facilitating such mobility *(Vaara et al., 2003)*.

However, a number of significant differences in the framework of employment relations across countries have been identified in different studies. The differences of 'national business systems' shows up in a number of respects. One aspect of this is in relation to the managerial backgrounds. In France and Germany, it is common for senior managers to have technical backgrounds, whereas in the UK and the USA, finance and accounting backgrounds dominate. This has implications for the sort of control mechanisms adopted at firm level. Historically, many large French and German firms have favoured a 'functional corporate structure' in which senior managers are involved in a range of technical and operational matters in various units. In contrast, most UK and US firms have strongly favoured a 'multi-divisional' structure in which the HQ merely exercises financial controls over divisions which operate with devoted responsibilities *(Meyer and Whittington, 2002)*. A further difference between countries concerns the use by firms of 'internal labour markets' in which the recruitment is undertaken to fill junior positions with more senior positions being largely filled from internal promotions, while this has

been a common practice in Japan, UK etc. However, a new trend is fast catching up in UK, where much greater recourse to the external labour market is steadily being adopted. This has inevitably caused greater 'inter-firm mobility' of labour. The laws and institutions that afford employees the right to be consulted about, and to influence, decisions that affect their job-security, pay prospects and the nature of their day-to-day work also differ markedly from country to country, with one contrast being between highly regulated and codified system of employee representation in Germany and the more deregulated US system.

One illustration of how national differences are evident in a firm formed through a cross-border merger is provided by Vaara *et al.,* (2003) their study of the Scandinavian financial services group Nordea, the authors have cited the views of managers within the organization and show how 'national stereotypes' were constructed and endured. While these did not represent an 'absolute truth' concerning how people behaved, they did help those within the organization to make sense of why others quaintly seen as consensus-driven, Finns are action-oriented, Danes as negotiating merchants and Norwegians as people who go straight to the point in decision making.

These national differences are central to understanding the competing pressures on firms as they acquire or merge with those in other countries. The differences create pressure of national 'differentiation' of HR policies, for a company's approach to be responsive to the peculiarities of national systems. Edwards and Rees (2007) in their illustrious works have shown how most of the international firms are embedded in their original country in a range of ways. This embeddedness gives rise to 'country of origin' effect in the way MNCs manage their workforces.

Indeed, the available evidence suggests that MNCs are significantly influenced by their original nationality in this respect. One illustration is a study by Faulkner *et al.,* (2002) that examined acquisitions of UK firms by foreign MNCs. Over the period 1985-1994, the researchers used a postal survey to examine the nature of post-acquisition change in 201 cases where there were some changes that appeared to occur. Their research observation reveals that irrespective of the type and nationalities of the firms, a significant difference has always persisted in the handling of HR issues in the post-acquisition period, particularly in relation to recruitment, development and termination practice.

One of the significant findings was the preference among US firms for formal and regular appraisals, with these being used to ensure good performance; consistently substandard performance could easily lead to 'separations' under such systems. More generally, US firms exhibited a centralized forceful and hands-on approach to integration, including an emphasis on trying to shape the culture of the acquired unit. Japanese companies also exhibited some distinctive ways of integrating acquired firms: they were less likely to rotate managers between different tasks, they regarded seniority as an important criterion for promotion; and they took a slower, more considered approach to change than the American. French acquirers also appeared to introduce some nationally specific practices in the post-acquisition period, such as emphasizing formal qualifications as criteria for promotion. Richardson and Neckham (2014) have further argued that there was a 'glass ceiling' for promotion for non-French managers. The same study

further revealed that German acquirers tended to emphasize technical expertise
in recruiting, but generally they adopted a highly decentralized approach on HR
issues and relatively, placed less emphasis on using human resource management
in the integrative way.

   Where the acquiring firm is clearly bigger than the acquired unit, the 'country
of origin' effect seems to show through clearly. However, what happens where the
two parties to a merger are of a comparable size? In such cases, the orientation
of the merged firm is less clear-cut. This is a significant issue because in the last
few years, a number of cross-border mergers have involved broadly similar-
size firms, creating what has been termed 'bi-national' firms. Bi-nationals are so
called because the merger results in them having strong roots in two rather than
one business system. In the case of 'bi-nationals' created through cross-border
mergers and acquisitions, it is possible to predict how the management of people
will be handled? In particular, are there likely to be discernible national effects?
Thomson and Churchill (2009) have identified three possibilities in this context.
Firstly, they have identified that two national management styles might continue
to be evident some time after the merger, where full integration between the two
parties to the merger being weak. Secondly, they have identified an 'integrated
style', which could emerge following the merger that could be a hybrid of the two
styles. Thirdly, they have identified an integrated style based on one of the styles
characteristic of one of the two firms.

Restructuring at National Level and the Legacy of Distinctive National Systems

The regulation of mergers and acquisitions has some common aspects across
countries. This is particularly so within the European Union, where there is a
common legal framework setting out a minimum set of employee rights during
mergers and acquisitions. This framework stems from the European Union
Acquired Rights Directive (77/187/EEC), which was revised in 1998 (98/50/
EEC), concerning the safeguarding of employees' rights in the event of a transfer
of ownership of companies. In essence, the acquiring firm must respect most of
the obligations that the acquired firm had towards its employees. The directive has
been implemented into national law in all European Union states, with only limited
variation at national level. Thus, where mergers and acquisitions bring together firms
from different European Union countries, there is to some extent a common legal
framework governing the process (Edwards and Rees, 2007). Despite this, marked
differences in the extent of regulation across European Union have been found
regarding the provisions of employee participation in mergers and acquisitions. In
the Netherlands, for example, there are a number of institutional means through
which employees' rights are protected, notably through the merger code and works
council legislation. These require that management in the companies involved in
a merger inform both sides of works council representatives and will also inform
the union representatives. In this case, management is also required to provide the
works council the relevant information concerning the likely impact of the merger
and a justification is also required for this decision. The companies need to ensure

the protection of the rights of the workers too. In Spain, there are also national level provisions safeguarding employees' rights, though these are not found as strong as in the Netherlands. Firms in Spain are however obliged, to consult with both works councilors and trade unionists. In the UK, by contrast, the ability of the employees to influence the merger process is found to be relatively weaker and the framework protecting employees' rights is considered to be more minimalist. It is found that the European Directives were transposed in to UK law through the transfer of undertakings (Protection of Employment) Regulations (1981), known as TUPE. This act, which has subsequently been amended to comply with the new European Directive, has given employees the basic rights of consultation that exists across Europe (Belanger *et al.,* 1999).

Differences in the regulation of mergers and acquisitions within the European Union are found to be greater, when the same are compared with other countries, such as those in North America and Asia. Variations in legal frameworks can be considered as only one aspect, other major differences have been identified by the researchers such as Forsgren (1990), Schuler *et al.,* (2003), Stahl *et. al*., (2004) etc. These differences have actually decentralized the decision making on HR issues in firms formed through a cross-border merger. In other words, 'host-country effects' significantly shape the handling of HR issues.

The importance of these national-level institutions and regulations shows up in a study of Franco-German mergers. Corteel and Le Blanc (2001) argue that 'social issues' – by which they mean pay, working time, holidays, pensions and so on – are governed by national logic, and that these are 'instingly rooted at national level'. Thus in the companies they examined, the differences between the French and German operations in terms of pay, benefits and working time arrangements that existed prior to the merger continued to exist following the merger. Managers had not sought to integrate practices in this area, principally because they recognized the importance of national-level regulations and the strength of the 'social partners' in the two countries. The research by Edwards and Rees (2007), has confirmed this picture. Based on the interviews with HR managers in the British arm of 12 firms (those have been involved in cross-border merger and acquisition), they have shown that how remuneration is strongly conditioned by national level factors. According to them, pay and benefits is clearly one of the areas where differences in practices become immediately apparent following a merger. They further conclude that the MNCs have a strong incentive to integrate these policies, particularly where they want employees to be geographically mobile. However, a key constraint on managers, as per their observation, is that integration will only be readily agreed by employees if it takes the form of 'upward mobilization'. Thus host country effects lead to the creation of a 'patch work quilt' of various sets of pay and conditions across borders. The difficulties in integrating remuneration policies across sites in different countries also exist, although to a lesser degree, between sites within countries. The TUPE regulations in the UK, and the role of unions in securing collective agreements in many organizations, mean that levels of pay and benefits continue differ across sites that formerly belonged to different firms. They have further highlighted in their research that an IT service company, that had gradually taken on groups of workers from other organizations

through sub-contracting, follows 27 sets of terms and conditions in their UK operations. Faulkner *et al.,* (2002), in their research have found that majority of the French organizations are quite clear that while they would like pay levels to be similar across their operations in France, there is little prospect of employee representatives agreeing to this. According to them, thus the 'patch work quilt' exists within as well as between countries.

Another major trend is found that is shaping the host country effects has been cost savings. Study by Frankman and Raynolds (2012), has shown that many cross-border mergers have been concluded under the motivation of cost-cutting through removing duplicate functions and concentrating activities in particular locations. Corteel and Le Blanc (2001), have presented a fascinating case that demonstrates this, namely the merger between the German owned Quante and the French owned Pouyet. Following this merger, the IG Metal union in Germany and the unions in France were successful in preventing any cutbacks leading to compulsory lay-offs in France or Germany. However, the company closed a plant in UK and the workers could not resist anything as they did not have legal protection. The scholars have argued that to preserve national employment in home country, the company caused job loss in other countries. Their argument has virtually supported and justified many re-structuring across Europe, happened during 1980s and 1990s, which caused protection of jobs in one country, while causing huge job losses in other countries.

Political Dimensions to Cross-Border Mergers and Acquisitions

Mergers and acquisitions, whether domestic or cross-border, are a time, when organizational structures and styles are 'unfrozen' and new ones are created. At the same time, many individuals and group, within the organization concerned attempt to defend or advance their interests. This perspective on organizations generally is well developed in the academic literature on strategy making and organizational change. The political dimension of cross-border mergers also shows up in the struggle for influence by the organizational actors from different functions. Of great relevance, here is the role of those in the HR function; a perennial concern for HR practitioners in UK and in many other countries is their relatively low status within the organizations, leading to the danger from their perspective of being marginalized during major organizational changes such as international mergers and acquisitions. In one of the IT companies, studied by Rees and Chris (2003), the HR director indicated that the function has not been involved in key strategic decision making during an acquisition, such as the choice of partner and the speed with which it could be integrated etc. Even it has been reported by many other scholars such as Harrington and Blake (2014) that in case of cross-border mergers and acquisitions, on HR related issues such as consultation process and recruitment of key positions within the acquired unit etc., HR department is very often kept out of core decision making processes. Corteel and Le Blanc (2001) in their research have however shown some examples where the HR practitioners used merger and acquisitions as opportunities to raise the profile of HR within the

organization. They have highlighted one example of an American multinational financial services firm, where HR department played significant role to convince other managers, of the benefits of involving the HR leadership of the company in the setting up of joint ventures in various European countries. These efforts took the form of stressing the impact on the bottom-line of mishandling HR issues, such as legal penalties of contravening the Acquired Rights Directive and Supplementary national regulations (ARDS).

Another major question related to many cross-border mergers and acquisitions, which can be considered as highly political, is about cost-cutting. Based on their studies of Franco-German mergers, Corteel and Le Blanc (2001), have argued that a company's overall workload is governed by a 'national fair balance rule'. This rule means that orders from customers are distributed among the firm's sites not only according to what is seen just. In other words, these decisions are governed partly by 'rationality' but also by 'fairness'. The impetus for this often stems from informal deals that were struck during the merger negotiations and these deals were not binding following the merger, but breaching them would risk creating serious grievances in the units that came off worse.

Overall, this line of analysis indicates that it is the diffusion of control of resources across a range of groups within a merged organization that results in the process being so highly political. One of these resources that is controlled by staff at unit level within multinational companies is knowledge of, and expertise in, local institutions and regulations. The organizations can use this knowledge and expertise to advance or protect their own interests.

Conclusion

Theoretically, it has been found that the extent and form of integration between firms engaged in cross-border mergers get shaped by the national business system of the dominant firm, but also get constrained by the peculiar features of the various national systems in which the merged firm operates. It has also been argued in the present study that the integration process and henceforth the restructuring of the organizations are also highly political process. Majority of the studies have also shown that the structural aspects of national systems on the one hand and political processes within merged organizations on the other are inter-dependent. Finally, it can be concluded that in practical terms, the preceding analysis of cross-border mergers and acquisitions has far reaching implications. One of the central findings in much research on international mergers and acquisitions has been the high rate of failure. The examples of difficulties of mergers and acquisitions at Vivendi and difficulties in Corus, have shown how different regulatory contexts and highly politicized nature of post-merger scenario can create the problem of integration. It can therefore be said that an appreciation of the nature of the likely challenge on the part-of both 'deal-makers' and those such as HR practitioners involved in the subsequent integration is essential to achieve the most desirable positive objectives.

References

Belanger, J. et al. (1999). *Being Local Worldwide: ABB and the Challenge of Global Management*, Ithaca, NY: Cornell University Press.

Corteel, D. & Le Blanc, G. (2001). The importance of the National Issue in Cross-Border Mergers', paper presented to the conference on 'Cross Border Mergers and Employee Participation in Europe', Ecole des Mines, Paris, 9th March, Proceedings: Wellington.

Edwards, T. & Chris, R. (2007). International Human Resource Management: Globalization, National Systems and Multinational Companies, First impression, Pearson Education, UK.

Faulkner, D. et al. (2002). International Mergers and Acquisitions in the UK 1985-94: A comparison of National HRM practices, *International Journal of Human Resource Management*, 13(1), pp: 106-22.

Forsgren, A. (1990). Managing the international multi-centre firm, *European Management Journal*, 8(2), pp: 261-67.

Frankman, J. & Raynolds, B. (2012). Cross-mergers and challenges, *Journal of Business Review*, 6(1), pp: 108-125.

Harrington, W. & Blake, E. (2014). Aspects of takeovers and mergers in recent times, *International Business Review*, 7(1), pp: 89-109.

Meyer, R. & Whittington, c. (2002). Structural and allied challenges of integration in mergers and acquisitions, *Journal of Business Research*, 8(1), pp: 480-491

Richardson, K. & Neckham, D. (2014). How does integration happens in multinational mergers: Possibilities and Challenges in Franco-German mergers and acquisitions, *Journal of International Management*, 6(1), pp: 203-219.

Schuler, R., Jackson, S. & Luo, Y. (2003). Managing Human Resources in Cross-Border Alliances, London: Routledge.

Stahl, G. et al. (2004). 'Human Resource Management in Cross-Border mergers and acquisitions', In: A-W. Harzing and J. Van Ruysseveldt (eds) 'International Human Resource Management, London: Sage.

Thomson, J. & Churchill, K. (2009). Culture and Management Styles in Mergers and Acquisitions, *International Business Review*, 10(4), pp: 1887- 1901.

Vaara, E. et al. (2003). 'Nation Talk: The construction of national stereotypes in a merging multi-national', In: A. Soderberg and E. Vaaara (eds.) Merging Across Borders: People, Cultures and Politics, Copenhagen Business School Press.

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Employee Volunteering in CSR Activities – A Case Study of Genpact

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Abstract

Volunteering represents a way of giving back to the community while strengthening relationships and building new skills, which ultimately improves the workplace and boosts employee engagement.

Today Employee Volunteering has been gaining greater importance as many companies consider how best they can express their commitment to corporate citizenship. Employee volunteerism is a practice of corporate social responsibility that aids organization by strengthening employee satisfaction, their retention internally and by strengthening corporate reputations and connections with stakeholders externally.

Keywords: Volunteering, Employee Engagement, Corporate Citizenship

Introduction

Business is an inseparable and embedded part of the society. In addition to its economic role in society, business also has several other roles and responsibilities towards society, viz. responsible conduct of business activities while pursuing economic gains; the social and environmental responsibilities of the business towards its stakeholders; and business's contributions that would benefit the society. Business responsibilities is thus discussed with reference to the stakeholders of business and the wider society. The term, CSR, in this research study, refers to a business organization's responsibility for integrating stakeholder concerns in routine business activities for primary stakeholders (employees, customers, suppliers), as well as environment and communities which often are considered as extensions of the primary stakeholders of the firm.

Monetary donations usually steal the spotlight, but now a days many companies are promoting innovative volunteer programs to the lead in their sustainability

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agendas. Volunteering helps to gain or enhance one's own skillset. Charities and non-profit organizations have been feeling a greater need for non-monetary support. The business world has stepped into this breach by supplying their staff to assist charities through structured volunteering programmes. Company volunteering programmes gives employees the chance to draw on their own skills and expertise.

In the present-day scenario, employees are not just looking for careers but also for opportunities to make a positive impact by participating in CSR. Employees prefer to be a part of a company, which is socially responsible. Companies are also adjusting their CSR approach to include a heavy dose of volunteering opportunities and becoming more successful at recruiting and retaining a workforce. Employees prefer being part of a company volunteer project rather than individually donating to a giving campaign. Organizations are using specific practices and procedures to encourage and support volunteer activities of employees and linking the employee volunteerism to their corporate social responsibility strategy.

Employees would be more likely to volunteer if they could use their specific skillset or expertise to benefit the cause of social good and for doing this company provides the platform to seize the opportunity of volunteering. Companies are embedding volunteerism into its own culture, employee satisfaction and engagement increases substantially, strengthens relations among colleagues.

Creating a volunteer team is also a great way of building inter-departmental relationships across a large company. A well-thought-out CSR initiative team will involve members from across all departments of a company. In this way, an employee volunteering programmes can forge stronger bonds and a sense of belongingness among co-workers, resulting in stronger relationships.

This paper attempts to study the analysis of factors which have motivated them to participate in CSR, what are the problems faced by them and suggestions for improving the CSR activities.

Review of Literature

- Abd-Elmotaleb, Mostafa; Saha, Sudhir K.; Hamoudah, Abd-Elnasser M.(2015)[1], emphasized **i**n the study that CSR as internal as well external. It is the path through which employees' frame perceptions about the company that how it cares about them and being good as internal CSR. The other path is through employees' perceptions of their company as socially responsible toward external stakeholders and concerned with maintaining a good image to society at large, or looking good i.e., external CSR.

- Prutina, Zana, Feb (2016)[2], identified two elements of organizational culture--namely CSR values and employee engagement in CSR and treats them as mediators for improving the relationship between employees and the company. Employees feel more valued when they are working for the companies, which have CSR values towards society in which they operate and also boosts employee's morale and leads to increased productivity.

- Rima Hussein, (2009)[3]: "presents the work focused on CSR in the private sector, as it was considered that the named allegiance to corporations restricted its application to the private sector. This thesis also advocates of CSR aim

to increase awareness among corporations of duties other than the fiduciary and extends responsibility to other groups which are impacted on by the corporation's activities; namely its stakeholders (Trustees, Partners, Local Communities, Employees).

- Sanjay Mohapatra(2012)[4] The study dealt with the basic objective of Corporate Governance structuring is to motivate and control executives and employees to retain fair business practices and effectively utilize various resources to maximize efficiency of a business for economic, moral and environmental benefits of stakeholders in emerging markets.

- Tuzcu, Arcan, (2014)[5], investigated the employees' perception on corporate social responsibility and examines the effect of this perception on organizational commitment and job satisfaction which ultimate effect the growth of both the company as a whole as well growth of the employee.

- Wirth, Herbert; Kulczycka, Joanna; Hausner, Jerzy; Konski, Maciej, (2016)[6], evaluated that the main role of CSR for mining companies is to ensure a responsible business venture to reduce potential risks arising from safety issues and a potential negative environmental footprint and to attract better employees and gain acceptance among local society.

Research Gap

The above review of the literature reveals that in spite rapid growth of Corporate social responsibility (CSR) at organization as well as at individual level, it still lacks complete understanding of why and how individuals i.e., employees play a major role as volunteers in CSR. This paper contributes to the gap by exploring the relationship between CSR initiatives and employee engagement at Genpact, to analyze the perception of employee as volunteers.

Objectives of the Study

- To analyze factors which have motivated employees to participate in CSR.
- To assess the problems faced by employees while volunteering.

Research Methodology

Research Methods

The study has adopting a multi method framework, which includes survey and documentary analysis.

Research Instruments: Questionnaires, are used as data collection instruments.

Source of Data: The study is based on primary and secondary data. The primary data is collected through questionnaires. A structured questionnaire is administered to employees to understand their involvement and perceptions in CSR activities. The secondary data is collected from the various Annual reports, publications, journals, articles, reports and Internet (websites).

Sample Design: The data is collected from a total sample of 150 employees across the departments who are involved in CSR activities as sample to understand their perceptions. Method of sampling was convenience sampling.

Quantitative Techniques: Factor analysis is used to identify the principal factors for studying the employee perceptions.

Period of the Study: The perceptions of the employees have been taken up through the questionnaire administered and for a period of 6 months i, e from Jan to Jun 2018.

Scope of the Sstudy: The study intends to analyze the perceptions of employee's volunteers. Though Genpact operates globally, the study is confined to the perceptions of employee volunteers within Hyderabad.

Results and Discussion

Total 150 questionnaires were distributed and are the basis for computing the results. 150 questionnaires were completed by those employees who had been part of the CSR activities on regular basis rather than one time participants. These employees are also part of Genpact CSR team by the name Sankalp, they participated in CSR initiatives on regular basis and attend CSR related meetings periodically.

It is attempted to understand the various reasons behind employees to volunteers for Genpact CSR activities and will give clarity as which reasons are acting strong. Majority of the respondents strongly agreed that level of personal satisfaction acted as major reason to be part of CSR activities. Voluntary contribution, sense of belongingness to the society and personal recognition are considered as personal factors which have motivated employees to be part of the CSR volunteering. From the organization point of view volunteers have agreed that their performance is affected by the participation which have reflected in their appraisals.

Table-1: Reasons for Participation by Employees as Volunteers in CSR

Parameters	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Level of Personal satisfaction	106	33	11			150
Voluntary Contribution	81	45	17	6	1	150
Sense of belongingness to the Society	71	53	22	3	1	150
Personal Recognition	43	46	21	18	22	150
Performance affected by Participation	34	67	28	10	11	150
Mandatory Participation	30	29	38	15	38	150

Source: Primary data

Further, to understand which factor is really affecting, the Factor Analysis is conducted. SPSS displays Factor Analysis output in many tables depending on what we specify while selecting various options. These results are shown in below tables.

Table-2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.638
Bartlett's Test of Sphericity	Approx. Chi-Square	178.330
	Df	15
	Sig.	.000

The value of KMO is .638. It explains the sampling adequacy for running factor analysis. The data set reveals that the existence of only two principal component, which explains about 63.794% of total variance cumulatively.

Table-3: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.958	32.628	32.628	1.958	32.628	32.628	1.954	32.570	32.570
2	1.870	31.166	63.794	1.870	31.166	63.794	1.873	31.224	63.794
3	.659	10.989	74.783						
4	.618	10.292	85.075						
5	.497	8.283	93.357						
6	.399	6.643	100.000						

Extraction Method: Principal Component Analysis.

From the Table-3 there are 6 factors, which is same as the number of variables entered into the Factor Analysis (the six variables viz; reasons behind participation in CSR activity including level of satisfaction, performance affected by participation, mandatory participation, sense of belongingness to the society, voluntary contribution, personal recognition is loaded on the two components). Actually these factors are not the same as the variables. The first column under Initial eigen values gives the eigen values for all the possible factors in a decreasing order. The first component will always account for the most variance which means highest eigen values i.e, 1.958, second component is 1.870 and the next component will account for as much of the left over variance as it can, and so on. From the table, the third row shows a value of 63.794%. This means that the first two components together account for 63.794% of the total variance. The second part is Extraction Sums of Squared Loadings which gives the information about all the factors with eigen values greater than 1. The number of rows reproduced on the right side of the table is determined by the number of principal components whose eigen values are 1 or greater than 1. In Table-3 first two components are 1.958 and 1.870. The figure under cumulative % indicates that the two extracted factors explain about 63.794% of variance. The last part is about Rotated sums of Squared Loadings gives the information for extracted factors after rotation. If we can give option of 'Rotated Sums of Squares' before running the test, then only this column will appear. In the Table, there are only two factors with eigen values greater than 1.

Table-4: Rotated Component Matrix[a]

	Component	
	1	2
Level of Satisfaction	.824	-.075
Performance affected by Participation	.027	.775
Mandatory Participation	-.005	.807
Sense of belongingness to the society	.818	.127
Voluntary Contribution	.778	-.038
Personal Recognition	-.015	.773

Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization[a]

a. Rotation converged in 3 iterations.

Figure-1

Scree Plot
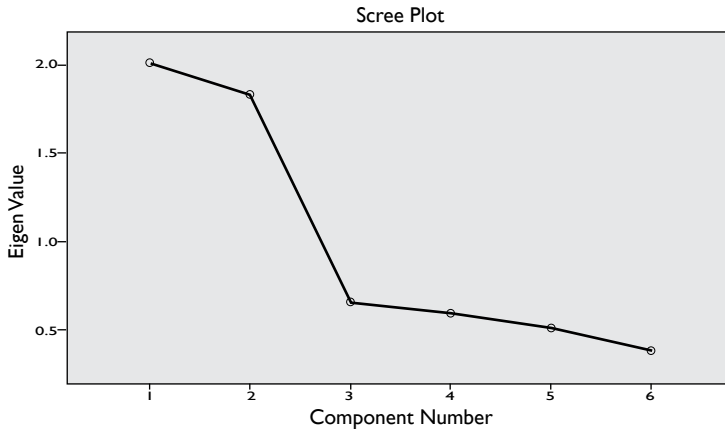
Figure-2
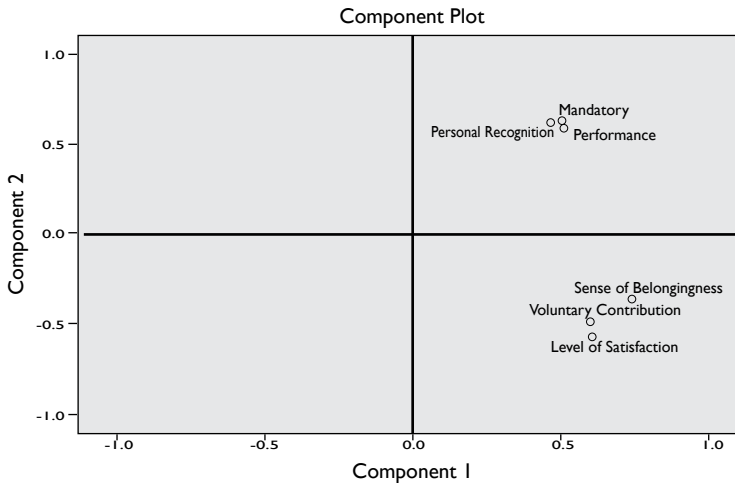
Component Plot

Table-4 contains component loadings, which are the correlations between the variable and the component. Because these are the correlations, possible values range from -1 to +1. As we can observe by the footnote provided by SPSS (a.), two components were extracted. The column 1 and 2 are the principal components that have been extracted (the two components that had an Eigen value greater than 1. There are few variables with high loadings on more than one component in the component matrix. So that Rotated Component Matrix will be applied. For a good factor solution, a particular variable should load high on one factor and low on all other factors in the rotated factor matrix. From the table it is also understood that the level of satisfaction has high loadings of .824 followed by sense of belongingness to the society with second high loadings of .818 and voluntary contribution resulting in .778 from 1st component. When observed at 2nd component values, mandatory participation stood with highest loading of .807, followed by performance affected by participation with .775 and personal recognition at .773.

Table-4 factor 1 can be named as Internal non-monetary satisfaction and comprises of three variables namely level of satisfaction, sense of belongingness to the society and voluntary contribution. Factor 2 as performance related responsibilities which comprises of three variables like performance is affected by participation, mandatory participation and personal recognition.

Demotivation Factors

It is attempted to understand the factors, which are acting as demotivation factors to the employees,taking part in CSR activities. Majority of the employee's opinions are based on their observation while doing CSR activities that, CSR activities are rendered in the areas which are less focused by ignoring the major areas where there is attention is needed. As the CSR is compulsory but non-mandatory, hence the expected level of volunteering hours and activities are not met. The involvement of the HR in CSR activities is not up to the employee's expectations. In any program, Incentives act as a motivational factor but lack of this minimum incentive policy towards CSR activities makes employee demotivated. Due to lack of proper support from the management while doing CSR activities, employee as an individual is unable to give back to the society or to the needy the extent of their skills and talents. Lack of clarity relating to CSR initiatives makes uncertain the employee participation. There is inappropriate allocation of CSR funds along with lack of coordination and lack of technology for the proper implementation of the activities. Fraudulent activities and reporting has led to dissatisfaction. There is no proper and continuous rapport with the beneficiary and poor responses from respondents resulted in no show in CSR activities by employee volunteers. Improper reporting and uncertainty from responsible authority and concerned authority has also led to these dissatisfactions.

Table-5: Reasons for Demotivation of Employees in CSR Activities

Obstacles	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Rendering CSR activities in less focused areas	42	40	49	11	8	150
Lack of sufficiency of HR to take up CSR Initiatives	42	44	46	10	8	150
CSR is not Mandatory	42	40	43	11	14	150
Lack of Incentive policy towards the CSR activities demotivates.	41	41	52	12	4	150
Lack of Support from Management	36	42	50	13	9	150
Lack of Clarity relating to the CSR Initiatives	36	45	51	9	9	150
Inappropriate allocation of CSR funds	36	39	44	16	15	150
Lack of coordination/ consultation	35	51	37	14	13	150
Lack of Technology for implementation	34	62	35	12	7	150
Fraudulent Activities/ Reporting	33	35	48	18	16	150
Lack of rapport with beneficiaries	32	50	40	15	13	150

Obstacles	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
Poor Responses from respondents	30	43	54	16	7	150
Improper reporting system	27	47	44	19	13	150
Uncertainty from Responsible authority	15	68	46	14	7	150

Source: Primary data

From Table-5 it is clearly evident the factors which are leading to the dissatisfaction among the employee volunteering are identified.

Further, to understand which factors are really causing demotivation, the Factor Analysis is conducted. These results are shown in below tables.

Table-6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.917
Bartlett's Test of Sphericity	Approx. Chi-Square	1317.251
	df	91
	Sig.	.000

The value of KMO is .917. It explains the sampling adequacy for running factor analysis. The data set reveals that the existence of only two principal component, which explains about 64.755% of total variance cumulatively.

Table-7: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.637	54.551	54.551	7.637	54.551	54.551	4.620	32.997	32.997
2	1.429	10.205	64.755	1.429	10.205	64.755	4.446	31.759	64.755
3	.733	5.235	69.990						
4	.712	5.084	75.074						
5	.691	4.938	80.013						
6	.496	3.545	83.558						
7	.419	2.990	86.548						
8	.402	2.873	89.420						
9	.339	2.419	91.840						
10	.311	2.222	94.062						
11	.274	1.961	96.022						
12	.251	1.793	97.815						
13	.170	1.211	99.027						
14	.136	.973	100.000						

Extraction Method: Principal Component Analysis.

It was observed that the 14 variables viz; lack of technology, uncertainty from responsible, authority, lack of incentive policy, less focused areas, lack of support from management, lack of clarity relating to the CSR initiatives, poor responses from respondents, lack of sufficiency of HR to take up CSR Initiatives, CSR is not mandatory, fraudulent activities/reporting, allocation of CSR funds inappropriate, improper reporting system, lack of rapport with beneficiaries, lack of coordination/consultation and others (Please specify) are loaded on the two components.

From the Table-7, there are 14 factors, which is same as the number of variables entered into the Factor Analysis. But actually these factors are not the same as the variables. The first column under Initial eigen values gives the eigen values for all the possible factors in a decreasing order. The first component will always account for the most variance which means highest eigen values i.e., 7.637 and second component is 1.429 and the next component will account for as much of the left over variance as it can and so on. From the Table-7, the third row shows a value of 64.755%. This means that the first two components together account for 64.755% of the total variance. The second part is Extraction Sums of Squared Loadings which gives the information about all the factors with eigen values greater than 1. The number of rows reproduced on the right side of the table is determined by the number of principal components whose eigen values are 1 or greater than 1. In Table-5 first two components are 7.637 and 1.429. The figure under cumulative % indicates that the three extracted factors explain about 64.755% of variance. The last part is about Rotated sums of Squared Loadings gives the information for extracted factors after rotation. In the Table-7, there are only two factors with eigen values greater than 1.

Table-8: Rotated Component Matrix[a]

	Component	
	1	2
Lack of Technology	.136	.714
Uncertainty from Responsible authority	.205	.788
Lack of Incentive policy	.256	.715
Less Focused Areas	.334	.708
Lack of Support from Management	.246	.683
Lack of Clarity relating to the CSR Initiatives	.401	.695
Poor Responses from respondents	.423	.587
Poor Responses from respondents	.466	.638
CSR is not Mandatory	.692	.378
Fraudulent Activities/Reporting	.718	.409
Allocation of CSR funds inappropriate	.839	.285
Lack of rapport with beneficiaries	.830	.174
Lack of coordination/consultation	.854	.257
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 3 iterations.		

Figure-3

Scree Plot

Figure-4

Component Plot in Rotated Space
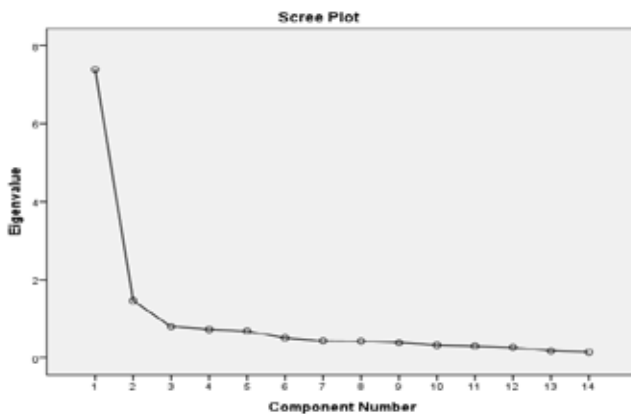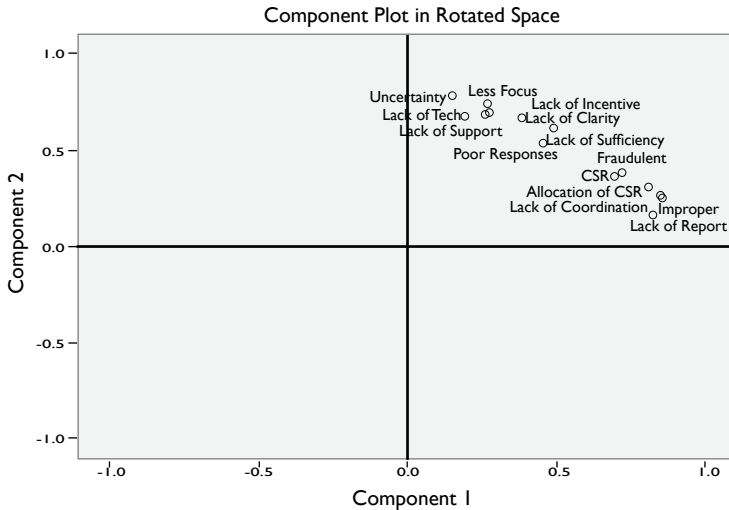

Table-8 contains component loadings, which are the correlations between the variable and the component. Because these are the correlations, possible values range from -1 to +1. As we can observe by the footnote provided by SPSS (a.), two components were extracted. The column 1 and 2 are the principal components that have been extracted (the two components that had an Eigen value greater than 1. There are few variables with high loadings on more than one component in the component matrix. So that Rotated Component Matrix will be applied. For a good factor solution, a particular variable should load high on one factor and low on all other factors in the rotated factor matrix. From the table, it is also understand that all the variables have high loadings on two factors.

From the Table-8 it is understood that the two factors are having high loadings i,e .854 Lack of coordination, .839 as inappropriate allocation of CSR funds and .830 lack of proper rapport with the beneficiaries. Based on these, first component can be named as inappropriateness in dealing with CSR activities. From component two, .788 uncertainty from responsible authorities, .715 lack of incentive policy and .714 lack of technology can be named as Company policy towards CSR.

Conclusion & Suggestions

In order to address the dissatisfaction and to improve the employee volunteering in CSR activities, suggestions are sought from the employee about how to overcome the obstacles and what could be the best way for doing better. They have come up with the below mentioned suggestions. Employees preferred to have calendar of CSR events at least for a quarter, which will enable them to manage their work keeping in mind CSR events as per the calendar. Minimum monetary or non-monetary incentives should be provided to encourage volunteering. Rather than individuals going and approaching for CSR activities, there should be group approach to CSR activities. Proper disclosure of CSR information should be there to all the levels of employees in the organization. Focus should be made

on identification of CSR activities as per the real need. Just by providing the facilities the responsibility of being social will not be satisfied, it is necessary to have continuous rapport for the maintenance of facilities provided. Transparency in terms of identification, allocation, evolution & publishing the reports should be given prime importance. Special coaching should be provided for strengthening CSR in the form of CSR related education, training and advocacy by experts to volunteers. Common code of conduct should be followed for all employees. Evaluation system should be improved and prescribed format and frequency should be followed for the employees.

References

Abd-Elmotaleb et al.(2015). Rethinking the Employees' Perceptions of Corporate Social Responsibility. [Available at:http://ccsenet.org/journal/index.php/ibr/issue/archive].

Prutina, Zana (2016).The Effect of Corporate Social Responsibility on Organizational Commitment [Available at:http://www.efst.hr/management/issues.html].

Rima Hussein (2009). Cultural Perspectives on the meaning of Corporate Social Responsibility in a Third Sector Organization.

Sanjay Mohapatra (2012). Does Better Corporate Governance and Legal Framework Results in Ethical Behaviour of Firms in Emerging markets? An Examination Using Partial Least Square Estimation, *Indian Journal of Corporate Governance*, 5(2).

Tuzcu, Arcan (2014).The Impact of Corporate Social Responsibility Perception on the Job Satisfaction and Organizational Commitment [Available at: http://iibfdergi. karatekin.edu.tr/OncekiSayilar.aspx].

Wirth, Herbert (2016). CSR: Communication about Social and Environmental Disclosure by Large and Small Copper Mining Companies.

Human Resources Development in Rural India For Extending Microinsurance: An Empirical Analysis

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Abstract

A number of studies have discussed the importance of socio-economic development in explaining the degree of financial access. The contribution on the socio-economic factors affecting the demand for insurance in developing countries is still rare. Based on current trends one can expect major changes in provision of products and services over the coming years. In this situation, the micro insurance institutions will have to design the product / offer the services which may prove instrumental in recognizing the multiplicity of household financial need. The present study incorporates several insights from the literature and emphasizes those factors that are likely to influence the demand for micro insurance in rural India, viz; household's ownership of assets, agricultural land & livestock, on the one hand and household's knowledge and usage of insurance on the other.

Keywords: Socio-Economic Status, Micro Insurance, Rural Poor, Millennium Development Goals (MDGs), Insurance Usage

Introduction

Developing the people is the essence of any human resource development effort. Social, economic & agricultural developments are ultimately meant to serve the people in terms of improving their happiness. Being agrarian in nature, economic development in India should come through development of rural human resources. For this purpose, human resource development is not only required for field functionaries, rather it is equally needed for beneficiaries. The field workers involved in human resource development in rural areas should be exposed to innovative managerial & leadership skills. On the other hand, the field survey pertaining to identification of local needs, availability of resources and knowledge

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& participation in rural development programmes on the part of beneficiaries is a prerequisite for human resource development in rural India. Moreover, development can only occur when a rural area is able to attract and sustain rural investment, through a conducive operating environment, suitable financial products and services, and attractive returns. In this connection, the efforts to make financial services accessible to poor rural house-holds must overcome several key constraints. First, rural incomes are highly susceptible to systematic risk, such as bad weather, disease, cyclical and seasonal fluctuations in prices of agricultural and related commodities. Secondly, return on investment and profit margin is often very low in rural areas. Thirdly, the low level of skills reduces the capacity for adopting new technologies, affecting both productivity and competitiveness in the market place.

Apart from the above mentioned constraints in delivering the financial services/ products to the rural poor, there is an emerging consensus in the literature examining the relationship between socio-economic status and demand for financial services, which finds a robust – if somewhat obscure – link in both rich countries and poor. A number of studies have discussed the importance of socio-economic development in explaining the degree of financial access. Low levels of social indicators are often associated with lower demand for and supply of financial services/products. Claessers (2005) cites that, the financial exclusion of people from credit is normally part of a wider social exclusion, which involves education level, type of employment, training etc. Barslund and Tarp (2008) suggest that the demand for formal financial services is largely driven by factors such as land holdings, and hence geared towards production purposes and asset management.

Other authors identify seasonal fluctuations in income, (Pitt and Khandker, 2002), gender and education level of the household head, training, prevalence of an outstanding loan (Tabbar et al.2002), family size, primary economic activity of the household head, interest rate, price of output and area of operational holdings (Swain 2007) as additional determinants of the demand for formal financial products/services. Zeller and Sharma (2002) point out that borrowing during adverse time is an integral part of the livelihood system of households in developing countries. However, the contribution on the socio-economic factors affecting the demand for insurance in developing countries is still rare. Although, there are numerous studies on informal insurance (Townsend 1995, Morduch 1995, 1999, Decron 2002, Churchill 2006), but not much is known about the socio-economic factor explaining the security against shocks. Alongside, location specific variables & households demographic variables are usually analyzed.

However, the importance of rural finance in poverty alleviation and achievement of the Millennium Development Goals (MDGs) means that it will remain high priority for Governments, donors and ofcourse for rural households. Based on current trends one can expect major changes in provision of products and services over the coming years. The rural human resource's access to financial products especially micro insurance is indeed a security against economic stressors, protection of family from unwarranted deaths & illness, saving money to cope with future shocks, children's education, daughter's marriage & funeral expenses etc. and the micro insurance institutions will have to design the product/offer

the services which may prove instrumental in recognizing the multiplicity of household financial need-not only for production credit, but equally so for school fees, health costs, birth, marriage and funeral costs, and housing, etc. For this purpose a complete socio-economic analysis of the target households along with household's knowledge and usages of insurance is needed. Thus, the present study incorporates several insights from the literature and emphasizes those factors that are likely to influence the demand for microinsurance in rural India. These include not only variables which have been tested in all the strands of the literature presented, such as certain demographic characteristics but also the variables which have not been tested for the demand for financial services/products.

Objective of the Study

The specific objective of the present study is to assess the development of rural human resources for the purpose of gauging the potentiality of extending micro insurance to rural poor by:

• Assessing household's ownership of assets, agricultural land & livestock.
• Analyzing household's knowledge and usage of insurance.

Sample Design, Data and Methodology of the Study

The scope of present study extends over two districts of eastern U.P. viz., Mirzapur and Sonebhadra. From each district, five villages have been selected randomly from a chosen block. A sample of 50 households has been selected from economic register of the respective village. These 50 households consisted of 25 households who are above the poverty line and 25 households who are below the poverty line. The sampling from the respective village's economic register has been started from the person who was at the top of below poverty line. Subject to availability of respondents, moving simultaneously in upward and downward direction, the population has been sampled. Thus, 50 households from one village represent the households who are just close to poverty line. In total; the sample consisted of 250 households from Sonebhadra (Myorpur block) and rest 250 households from Mirzapur (Marihan Block) districts of Eastern U.P. The present study is based on primary sources of data and information. For this quantitative study, a survey on representative sample of the above mentioned 500 household heads has been carried out using face to face method, on the basis of a well structured interview schedule. The survey work has been done during March-April and October-November, 2017. The data and information so collected has been tabulated, analyzed and interpreted to draw fruitful inferences fulfilling the specific objective of the study. The interpretation has been initiated with the help of relevant averages, percentages and ratios. Various journals, magazines and newspapers like Indian Journal of Commerce, Indian Journal of Economics, Finance India, Vikalpa, Times of India, Economic Times etc. have also been adhered to for the preparation of present study, besides the websites of International Labour Organisation, Microsave and several other Micro finance Institutions.

Survey Findings

• **General Profile of the Respondents:** The distribution of the sample shows

that most of the households (83.6%) interviewed were Hindus and around 13.6 percent belonged to Muslim Community. The proportion of Hindus was 81.6 percent and 85.6 % of the respondents in Sonebhadra and Mirzapur districts respectively. The caste desegregated profile of the respondents reveals that 68.8 percent and 82 percent of the respondents belonged to SC/ST category in Mirzapur and Sonebhadra districts respectively. In total, 75.4 percent respondents were from Scheduled Caste/ Scheduled Tribe Caste. Out of the sample surveyed, 41.8 percent respondents were female households. In Sonebhadra district, most of the respondents (67.2%) were male.

Nearly half of the respondents were in the age group of 30-40 and only around 11 percent had an age over 50 years. The distribution of sample also reveals that 9 percent of the respondents were unmarried and 4 percent were widows/widowers. The highest proportion of married respondents (90.4%) was registered in Sonebhadra district (Table-1).

- **Household Asset Ownership:** The information about the ownership of household assets is essential for gauging the standard of living in any community. Table-2 assesses the ownership of assets at the household level in all the two districts selected for the study. The perusal of the table explains that all the households were in possession of cot/bed, bicycle, mattresses and clocks/watches. Nearly 84 percent of the households were in the possession of an electric fan, 78 percent and 62 percent of the households had some chairs and tables respectively in their houses.

  Around 32 percent households had pressure cooker in their household assets, 10 percent were having sewing machine too. For entertainment and informative purposes, nearly 85 percent households use Radio/ Transistor & Television. So far as the means of communication is concerned, nearly 21 percent had access to mobile phones. Among other consumer durables, Moped/Scooter/Motorcycle is occupied by nearly 10 percent of the households whereas a very little proportion of the households (ranging between 3.2 percent to 8.2 percent) were having Tractor, Refrigerators, Thresher, Three Wheelers/Car/Jeep and Water pumps.

- **Ownership of Agricultural Land and Livestock:** Being agrarian in nature, the Indian economy shapes the majority of livelihood opportunities in rural areas. The findings of this study too corroborate this, as 84.8 percent and 82.8 percent households respectively in Sonebhadra and Mirzapur districts reported ownership of land for agricultural purposes. Around 16 percent of the households derive their livelihood from other than agricultural land holdings. The analysis of land holding pattern explains that around half of the households surveyed in Sonebhadra district possess agricultural land in the range of 1-5 Acre. For this size of land holding figure is 34.8 % in Mirzapur district. The survey findings further revealed that 11.2% and 7.6% respondents in Mirzapur and Sonebhadra districts have holding of more than 5 Acres of agricultural land. Nearly 31 percent of the households surveyed had, in total, land holding of less than one acre. (Table-3)

  Table-4 explains that a significant proportion of the surveyed households in all the two districts are dependent on livestock for a supplementary livelihood

option. More than 70 percent and 77 percent of the interviewed households in Sonebhadra and Mirzapur districts respectively reported ownership of livestock. Around 71 percent of the households having ownership of livestock were possessing cows and Buffalos. Around 23 percent and 19 percent households respectively among the livestock owners were also having multipurpose livestock like Goat/Sheep and Draught (Bullock) respectively for their supplementary livelihood. A total of 29.2 percent and 22.8 percent households surveyed in Sonebhadra and Mirzapur districts respectively didn't have ownership of livestock.

- **Knowledge about Insurance:** Table-5 tries to understand the awareness level of the respondents on the very basic construct of insurance, i.e. whether they have seen someone buying and selling type of instrument such as life insurance, vehicle insurance, property/asset insurance, agricultural/crop insurance, health insurance etc. on one hand, and knowledge about insurance companies on the other. Around 98 percent of the respondents reported that they have ever heard of 'BIMA' and have seen someone buying or taking some kind of insurance instrument. Nearly all the respondents in the sample had awareness about life insurance products. Around 82 percent of the sample households had knowledge about Vehicle insurance and 67 percent were aware about property/asset insurance and agricultural/crop insurance. Only about 24 percent of the respondents had idea about health & disability insurance products. So far as the knowledge about insurance companies is concerned, nearly all the households know about Life Insurance Corporation (LIC). Around 81 percent respondents know about General Insurance Corporation (GIC). A considerable proportion of the respondents in sampled districts know about Reliance Insurance, Tata AIG, Bajaj Allianz and other insurance companies.

- **Insurance Usage of the Households:** The understanding of the insurance usage of the households surveyed is an essential precondition for making widespread distribution of microinsurance products in rural financial market in India. Table-6 probed about the insurance products held/ purchased during last 10 years by the households. The perusal of the table explored that around 54 percent of the respondents had purchased insurance products during last 10 years. However, their access was found limited to life insurance products and vehicle insurance only. No respondents in the survey sample was having other insurance products like health/disability/illness insurance, property/asset insurance and agricultural/crop insurance etc. The picture clearly indicates that the households surveyed in the two districts of eastern U.P. are availing only life insurance and vehicle insurance. This calls for wide publicity of microinsurance products which the households might find utmost beneficial. So far as the adherence to various social security schemes is concerned, nearly 47 percent of the respondents reported that they have opted for Janani Suraksha Yojana. The Jana Raksha Yojana, Aarogya Yojana, Aarogya Bhagya and saving through local SHGs etc. occupy a negligible proportion among the various social security schemes opted by the surveyed households. Chit fund, old age pension/annuity and collection of money from people & redistribution during need is not at all opted by any of the respondents surveyed in the three districts of eastern U.P.

- **Reasons for Buying Insurance Policy**: However, asking what the main reason is to purchase insurance from the households who had taken any type of insurance product in the surveyed population, resulted in a more mixed picture (Table-7). The table explored that the most important reason for having an insurance product is to secure themselves against future shocks (around 52 percent respondents) followed by the motive of saving money for future exigencies (around 43%), for getting their children educated (around 35%). Comparatively, a very little proportion of the households reported that they are having insurance for investment purposes, for meeting funeral expenses and for protecting their family in cases of illness/death.

- **Reasons for not using Insurance in Past**: Table-8 ascertains the reasons for not using insurance in the past for those households who didn't have any insurance product. It is evident from the table that main reason behind not having insurance was insufficient information about the coverage, premium etc. and expensiveness of insurance products (37% respondents), unsatisfactory terms and conditions of the insurance policy (29% respondents), and inaccessibility to insurance agents (around 22% respondents). Around 15 percent of the respondents reported that they are able to manage the problems themselves and hence there is no need to opt for any insurance policy. A very little proportion of the respondents were not clear about where to find insurance.

Conclusion

Based on current trends, the micro insurance institutions will have to design the product/offer the services which may prove instrumental in recognizing the multiplicity of household's financial need. For this purpose, a complete socio-economic analysis of the target households along with household's knowledge and usages of insurance is needed. The socio-economic status of the surveyed sample has been found amply insurable, yet the micro insurance industry has to trace its roots. The present attempt offers following suggestions for successfully extending micro insurance to the rural poor in eastern U.P. In pursuit of this, the present attempt concludes that:

- Suitable micro insurance products should be developed considering the economic status, affordability and occupational engagements of rural households.

- Special training of insurance agents covering region specific needs is a must for distribution of micro insurance products in untapped rural market.

- Simultaneously, there is an urgent need for wide publicity of various types of micro insurance products in rural India.

References

Ahuja, R. (2003). Micro insurance for the Poor: Policy Choices, *Economic and Political Weekly*, 38(48).

Cohen, Monique & Jennefer, Sebstad (2003). Making Microinsurance Work for Clients, *Micro insurance Center Briefing Note #3, 2003*.

Cohen, Monique & Jennefer, Sebstad (2003).Reducing Vulnerability: The Demand for Micro insurance in East Africa, *Micro Save*.

ILO (2000). World Report 2000: Income security and social protection in a changing world, ILO, Geneva.

Microinsurance for the poor: Strengthening Services and Addressing Policy Issues, Proceedings of the National Workshop held at Vigyan Bhavan, New Delhi, September 1516, 2003.

Pierik, G. (2003). Micro-insurance in developing countries. Tilburg, Interpolis Re.

Singh R. Kumar. et al.(n.d.).Risk Exposure and Microinsurance Needs of Rural Poor: A Case Study of Informal Sector Workers in Eastern U.P.

Sarthak Gaurav et al. (n.d.). Innovating at the BoP: Delivering Microinsurance in Kalahandi, and Beyond.

UNDP (2007). Building Security for the Poor: Potential and Prospects for Microinsurance in India.Colombo: UNDP/RC Colombo/HDRU.

Zeller, Manfred & Manohar Sharma (2002). Access to and Demand For Financial Services by the rural Poor: A Multicountry Synthesis, in: The Triangle of Microfinance; Financial Sustainability, Outreach, and Impact, Manfred Zeller and Richard L. Meyer (ed.), Baltimore and London: John Hopkins University Press.

Appendix

Table-1: General Profile of the Households

Particulars	District		
	Mirzapur	**Sonebhadra**	**Total**
A. Religion			
Hindu	214 (85.6)	204 (81.6)	418 (83.6)
Muslim	30 (12)	38 (15.2)	68 (13.6)
Others	06 (2.4)	08 (3.2)	14 (2.8)
B. Caste			
General	22 (8.8)	17 (6.8)	39 (7.8)
OBC	56 (22.4)	28 (11.2)	84 (16.8)
SC/ST	172 (68.8)	205 (82)	377 (75.4)
C. Gender			
Male	123 (49.2)	168 (67.2)	291 (58.2)
Female	127 (50.8)	82 (32.8)	209 (41.8)
D. Age			
20-30	42 (16.8)	26 (10.4)	68 (13.6)
30-40	118 (47.2)	120 (48)	238 (47.6)
40-50	71 (28.4)	68 (27.2)	139 (27.8)
Above 50	19 (7.6)	36 (14.4)	55 (11.0)
E. Marital Status			
Married	209 (83.6)	226 (90.4)	435 (87.0)
Unmarried	28 (11.2)	17 (6.8)	45 (9.0)
Widow(er)	13 (5.2)	07 (2.8)	20 (4.0)
Divorced	-	-	-
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-2: Ownership of Household Assets

Household Assets	No. of Households		
	Mirzapur	**Sonebhadra**	**Total**
	250	250	
Cot/Bed	250	250	500 (100.0)
Bicycle	250	250	500 (100.0)
Mattresses	250	250	500 (100.0)
Clock/Watch	250	250	500 (100.0)
Radio/Transistor	212(84.8)	219(87.6)	431 (86.2)
Chair	214(85.6)	176(70.4)	390 (78.0)
Table	209(83.6)	105(42)	314 (62.8)
Mobile/ Telephone	61(24.4)	45(18)	106 (21.2)
Pressure Cooker	77(30.8)	83(33.2)	160 (32.0)
Electric Fan	207(82.8)	211(84.4)	418 (83.6)
Sewing Machine	28(11.2)	24(9.6)	52 (10.4)
Television(B/W), Colour	213(85.2)	209(83.6)	422 (84.4)
Refrigerator	12(4.8)	06(2.4)	18 (3.6)
Water Pump	14(5.6)	17(6.8)	41 (8.2)
Tractor	13(5.2)	05(2)	18 (3.6)
Thresher	08(3.2)	12(4.8)	20 (4.0)
Moped/Scooter/Motorcycle	32(12.8)	17(6.8)	49 (9.8)
Three Wheelers/ Car/Jeep	04(1.6)	07(2.8)	11 (2.2)
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-3: Ownership of Agricultural Land

Particulars	Mirzapur	Sonebhadra	Total
A. Ownership			
Yes	207(82.8)	212(84.8)	419 (83.8)
No	43(17.2)	38(15.2)	81 (16.2)
B. Land Holding Pattern			
< 1 Acre	92(36.8)	67(26.8)	159 (31.8)
1-5 Acre	87(34.8)	126(50.4)	213 (42.6)
5-10 Acre	28(11.2)	19(7.6)	47 (9.4)
10+ Acre	00	00	00
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-4: Ownership of Livestock

Particulars	Mirzapur	Sonebhadra	Total
A. Ownership			
Yes	193(77.2)	177(70.8)	370 (74.0)
No	57(22.8)	73(29.2)	130 (26.0)
B. Type of Livestock			
1. Milk Cattle (Cow & Buffalo)	183(73.2)	174(69.6)	357 (71.4)
2. Draught (Bullock)	56(22.4)	61(24.4)	117 (23.4)
3. Multipurpose (Goat & Sheep)	54(21.6)	42(16.8)	96 (19.2)
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-5: Knowledge About Insurance Among Households

Particulars	No. of Respondents		
	Mirzapur	**Sonebhadra**	**Total**
A. Idea of Insurance			
Yes	246 (98.4)	243 (97.2)	489 (97.8)
No/No response	04 (1.6)	07 (2.8)	06 (1.2)
B. Knowledge of Various Insurance Products (Multiple Answers Allowed)			
Life Insurance	246(98.4)	243 (97.2)	489 (97.8)
Health & Disability Insurance	78 (31.2)	43 (17.2)	121 (24.2)
Vehicle Insurance	217 (86.8)	193 (77.2)	410 (82.0)
Property / Asset Insurance	162 (64.8)	171 (68.4)	333 (66.6)
Agriculture/ Crop Insurance	162 (64.8)	171 (68.4)	333 (66.6)
C. Knowledge About Insurance Companies (Multiple Answers Allowed)			
LIC	246 (98.4)	243 (97.2)	489 (97.8)
GIC	216 (86.4)	187 (74.8)	403 (80.6)
Reliance Insurance	185 (74.0)	172 (68.8)	357 (71.4)
Tata AIG	105 (42.0)	97 (38.8)	202 (40.4)
Bajaj Allianz	102 (40.8)	84 (33.6)	186 (37.2)
Others	92 (36.8)	67 (26.8)	159 (31.8)
Total	**250**	**250**	**500**

*Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-6: Insurance Usage of the Households

Particulars	No. of Respondents		
	Mirzapur	**Sonebhadra**	**Total**
a. Have you/your household taken insurance/social security scheme during last 10 years?			
Yes	128 (51.2)	141 (56.4)	269 (53.8)
No/No Response	122 (48.8)	109 (43.6)	231 (46.2)
Total	**250**	**250**	**500**
b. Which insurance policy you/your household had taken during last 10 years?(Multiple Answers Allowed)			
Life Insurance	128 (51.2)	141 (56.4)	269 (53.8)
Health/Disability/Illness Insurance	00	00	00
Vehicle Insurance	87 (34.8)	92 (36.8)	179 (35.8)
Property/Asset Insurance	00 (0.0)	00 (0.0)	00 (0.0)
Agricultural /Crop Insurance	00 (0.0)	00 (0.0)	00 (0.0)
Total	**250**	**250**	**500**
Chit Fund	00(0.0)	00(0.0)	00(0.0)
Old Age Pension/Annuity	00(0.0)	00(0.0)	00(0.0)
Collecting Money From People and Redistribution during Need	00(0.0)	00(0.0)	00(0.0)
Janani Suraksha Yojana	106(42.4)	129(51.6)	235(47.0)
Jana Raksha Yojana (Universal Health Insurance)	13(5.2)	09(3.6)	22(4.44)
Aarogya Yojana	11(4.4)	17 (6.87)	28(5.6)
Aarogya Bhagya	11(4.4)	17 (6.87)	28(5.6)
Other Social Security Schemes	38(15.2)	22(8.8)	60(12.0)
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-7: Reasons for Buying Insurance Policy (Multiple Answers Allowed)

Reasons for buying Insurance	Mirzapur	Sonebhadra	Total
To secure against future shocks	128 (51.2)	132 (52.8)	260 (52.0)
For Investment	21(8.4)	24 (9.6)	45 (9.0)
To protect family in losses of illness/death	18 (7.2)	24 (9.6)	42 (8.4)
To save money for future	112 (44.8)	105 (42)	217 (43.4)
To obtain collateral for loan	0	0	00 (0.0)
To obtain funeral expenses	23 (9.2)	36 (14.4)	59 (11.8)
For Children's Education	85 (34)	92 (36.8)	177 (35.4)
Don't Know	13 (5.2)	7 (2.8)	20 (4.0)
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Table-8: Reasons for not using Insurance in Past (Multiple Answers Allowed)

Reasons	No. of Respondents		
	Mirzapur	Sonebhadra	Total
Insurance is too expensive	104 (41.6)	82 (32.8)	186 (37.2)
Do not have enough information	109 (43.6)	76 (30.4)	185 (37.0)
Do not knew where to find Insurance	4 (1.6)	3 (1.2)	07 (1.4)
I think nothing serious will happen to my family or me	0	0	00 (0.0)
We can manage problems ourselves	17(6.8)	23(9.2)	40 (8.0)
The insurance agents are too far from the place I live	43 (17.2)	69 (27.6)	112 (22.4)
Current terms and conditions do not suit me	63 (25.2)	82 (32.8)	145(29.0)
Total	**250**	**250**	**500**

Source: Primary Data

Note: Figures in brackets are respective percentages.

Kautilya's Teachings and its Applicability in Modern Businesses with Special Reference to Reliance Jio

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Abstract

This paper tries to analyse *Kautilya's Arathshastra* an ancient Indian literature and its applicability in the organizational management of a revolutionary company i.e Reliance Jio in today's scenario. There is need to look and re-look at the ancient literature and provide intellectual interpretations in the context of modern management. The analysis of *Kautilya's Arathshastra* in various functional areas of management such as communication, strategic management, human resource management and financial management is quite an interesting topic as we find traces of most of the strategies mentioned in ancient literature in today's business scenario being used as strategies to defeat competition. The life and soul of human existence is based on communication so as of the businesses too. Thereby, the role of telecommunication leaders become very strong in today's business scenario. *Kautilya* suggested the future managers to first defeat the competitors whom he calls as the enemies for growth. The paper further discusses about the major objectives of *Arathshastra* which are related to the objectives of Reliance *Jio* and the similarity between the both is examined.

Keywords: Strategic Management, Arthshastra, Jio, Communication

Introduction

The basic objective of any form of communication is to convey information, ideas and messages in such a way that it can produce responses as desired by the sender. The overall goal of business communication in every organization is to ensure effective and efficient functioning of the business system. With the advent of technology, communication and its relevance has gained more momentum and significance. But all together the usage of the information has become easy as

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well as complex due to its availability in the age of internet and advancement in technology. The increase in telecommunication advancements has given a real new meaning to it and the companies dealing in such businesses have gained opportunities as well as challenges in this complex dynamic environment. Information has always been a vital source of strength for business sustainability, if we try to look at the ancient past where kings were utilising various strategies on the base of information collected to sustain, protect or diversify their kingdom, we find most of them being used by the today's business tycoons. Many trading activities were prevalent in those times too. Today also, management of various organizations spend considerable time and money in collecting information for the timely decision making activities in order to take vital decisions which are of strategic importance.

Strategies have always been a base of taking any decision. In any organization, the management uses communication to keep the employees well informed about the goals, policies and rules. If the employees of an organization are well informed regarding certain vital aspects of the job, they can perform pretty well; as effective channels of communication play an important role in taking vital decisions in time. But still, communication has diverse dimensions for the internal as well as the external stakeholders. No arena of human activity can be imagined without communication playing significant role in it. To say that communication occupies a place of centrality in each and every human activity will not be an overstatement.

In today's dynamic business environment, information undoubtedly is the lifeblood of business. And the use of internet has brought a revolution in this. The telecom industry is playing a pivotal role in this complex and dynamic environment where the base as well as the objective is communication. One of the most important players in this industry is Reliance telecommunications which has brought a revolution in the field of communication and related aspects. In this paper, an attempt has been made to analyse the strategies of Reliance *Jio* and find similarities between the teachings of *Kautilaya's Arthshastra* with the strategies adopted by the company.

Though the teachings of Kautilya are very vast, to be specific the major pillars of the *Arthshastra* have been used as basis of finding the similarities and its applicability's.

Overview of teachings in *Arthshastra* having modern day business implications

In *Kautilaya's Arthshastra* it is stated that no organization or a country can survive if it not lead by a leader who is futuristic, optimistic, has knowledge of values and who can be a role model for his subordinates. *Kautilaya's Arthshastra* focuses on the fact that a leader must use opportunistic and clever tactics for defeating the enemy, so that in return he gets to benefit in the form of wealth. It also states that if the enemy is strong then leader should try to do certain agreements with them in order to sustain.

Kautilaya's Arthshastra explains one of the most important concepts which has a very practical relevance in modern business termed as the concept of *Matsyanyaya* i.e. big fish eats small fish or how a strong entity devours the weaker one. We can

see in the present world that how big companies are acquiring smaller companies in the market through mergers and acquisitions. When a big company sees a company is growing, it simply acquires the company, as a big fish eats small fishes in the pond. This concept is widely used in the telecommunication industry as a growth tactic.

Kautilaya taught about *mandla* system where the centre of circle is termed as nucleus is a kingdom and it is surrounded by its immediate neighbours who are considered to be the enemy of the kingdom of the central kingdom and the next state of the enemy is the enemy of the enemy and friend of the state at the centre. It represents how a state can be attacked by the states that have covered it from all sides and how a central state can take help of the friend state. Here, a state termed as *Madhyama* it is at the boundary of central state (*vijigishu)* and neighbouring state. *Madhyama* plays an important role as it can take side of either *vijigishu* or the enemy state. Another state that plays important role is *Udasima* i.e. neutral kingdom, which is so powerful that it can fight with both *vijigishu* and enemy state alone. Hence *Udasima* also plays vital role. To help *Vijigishu, Kautilya* gives a s*hadgunya* or six fold policy in which he explains if *vijigishu* is weak he must go for *sandhi* (peace), if strong then go for *vigraha* (war), *asana* (neutral position) if he is so powerful that no one can match its power, if war is starting then go for *Yana* (march) as it can make enemy fearful about you, if king is weaker then he must go for *Samsharaya* (seeking alliance or shelter) i.e. seek shelter form the stronger king and last is *Dvaidhibhava* (double policy) i.e. whoever thinks they must interfere to make end of war must make peace with one and war with another. The *shadgunya policy* needs to be applied using specific instrument to make them more effective. These instruments are, *Sama* (Conciliation) i.e. The king should adopt it when there is no chance of success. *Dana* (gift) this policy is to applied to weaker king to win without any war, *Bheda* (dissension) is to be used if *Dana* failed and includes sowing seeds of dissension and make enemy confuse and neutralize their threat, *Maya- Indrajala* (deceit and pretence) i.e. try to outsmart the enemy by hook or by crook, at last *Danda* (open attack or war) if all above stated instrument failed then go for open war.

As per *Kautilya,* time and information plays an important role in a kingdom. *Kautilya* has given a framework or we can call it as value based management model which defines the organizational philosophy which he calls as organization's mission in modern world. Accordingly, leadership in the organization should be in line with the organization's philosophy. It also defines the corporate culture which is based on the philosophy and the leadership of the organization. According to him corporate culture plays a vital role as it defines the values of the organization and how employees have to behave in the work environment, difference between ethical and unethical practices. Leader should take feedback from the stakeholders and the members of the organization for better achievement of the goal and purpose of the organization.

In *Kautilya's* disquisition, government is taken as an organization and its work is defined as to build a welfare state. In *Kautiliyan's* state, the king is the ideal of pureness who has the duty of keeping people happy. The duty of the king is *Yoga Kashima* (welfare). *Yoga Kashima* means protection of people, welfare of

people, wellbeing, prosperity, and happiness. As such, *Kautilya's* basis for value based management is welfare of the society and stakeholders. *Kautilya's* second component of value based management framework is value based leadership. He says that king is the leader of the state because success of the organization depends on the king of the state. According to *Arathshastra,* the primary goal of a leader is to meet the organization's philosophy. *Kautiliya* says "in the happiness of the state lies the happiness of the king". He says "what is dear to state is what is of benefit to the king and not what is just of benefit to the king and to the state". Piety, Truthfulness, Reliability, Gratefulness, Liberality, Promptness, Freedom from vices, Management in *Arthashastra,* Long term vision, Conduct in conformity with the advice of elders are the values which according to *Kautilya* should be present in a leader. He also talked about the presence of spirituality in a good leader. Knowledge of scriptures, good relation with elders and a proper advice of elders is a must according to him in a leader. *Yoga Kshema* (social welfare) which is root of the framework.

Another important aspect of the *Kautilaya's Arthshastra* is the foreign policy to be adopted by a king / state or a leader. *Kautilya* is of the idea that status and position of king describes the foreign policy to be implemented by him. So, the *Arathshastra* is the practical discussion of the policies decided by the superior, inferior or king of same status. It describes 6 types of foreign policy i.e Accommodation, Protection, Indifference, Hostility, Attack and the Double policy.

A week king pursues accommodation, protection and double policy and superior king goes for indifference, hostility and attack. Methods for dealing with internal and external enemies taken by the king are Conciliation meaning *Sama,* Gift meaning *Dana*, Dissension meaning *bheda* and Punishment meaning *danda*.

Vision, Mission and the Background of Reliance Jio

Reliance Jio Infocomm Limited is a subsidiary of Reliance Industries. Headquartered in Mumbai, Maharahtra, is the only VOLTE operator in India. Reliance Jio Infocom Limited completely focused on launching 4G service as its competitive advantage over other competitors in the Telecommunication Industry. BETA testing of Jio was limited only to Jio's partners and employees (27 DEC 2015-5 SEPT 2016) and the 4G service was launched on the of 83rd birth anniversary of late Dhirubhai Ambani, founder of Reliance Industries Limited. Later, it was commercially launched on 5th September 2016. Mukesh Ambani is the founder of Reliance JIO, and his wife Nita Ambani is the founder and chairperson of Reliance Industries Limited. Mukesh Ambani's twin children Isha and Akash were appointed as directors of Reliance Industries Telecom and retail revenues.

Mukesh Ambani, before 2002, was effectively running the Reliance Telecom as he already knew that telecom is a productive / fruitful business. But after the death of the Dhirubhai Ambani, demerger of Reliance Industries Limited caused the transfer of Telecom sector to the younger brother Anil Ambani. Further as an addition to his problems, a Non Competent Agreement was signed between him and his brother wherein it was mentioned that for a particular period, the elder brother, Mukesh will not interfere in the telecom sector and will not launch a

company against Reliance Telecom. When the agreement ended in 2010, Mukesh Ambani took the 96% share of Infotel Broadband Services Limited for Rs 4,800 crore, as Infotel was the only firm to win broadband spectrum in the 4G auction in all 22 zones in India in 2010 whereas Aircel and Airtel won 8 and 4 zones respectively. Later on Infocom was renamed to *Jio*, which means *"to live"*.

While in the market other telecom companies were focusing on 2G and 3G services, Mukesh Ambani launched 4G service because of his futuristic approach about the telecom sector, that too giving most of the facilities for free to Indian customers. Mukesh Ambani used the same strategy that he used in Reliance Telecom. He knew the Indians are known for utilizing freebies and are largely attracted towards them. So he provided free internet services to Indian customers, which helped him to draw maximum customers towards *Jio* from other competitors. In the beginning the offer was first given for 3 months, then it was further extended to 3 more months. Mukesh Ambani revolutionised the telecom industry by bringing 4G VOLTE in India at least affordable price. Products and services offered by *Jio* are 4G broadband, LYF smartphones, Jio wifi, Jio applications.

The Historical Speech made by Mukesh Ambani and its Implications

In the speech of Mukesh Ambani, which he delivered on Sept. 1, 2016 he mentioned that "it's a fundamental right of every Indian to live life of freedom, life of fulfilment and to realize their fullest potential….."

An attempt has been done to analyse the speech which can bring out certain implications or the strategies of the company. The larger communication of the strategies of the company was done in the very first speech after the launching, certainly which has revolutionised the Indian Telecomm Industry. The following are the key lines / statements which are worth drawing attention:

• He described the data as the oxygen, and oxygen can never be in short supply, and must not be unaffordable, doing so shows disrespect for life.

• He clearly mentioned that "Digital oxygen is growing explosive".

• Mukesh Ambani acknowledges the universal truth globally that consumers pay for either calls and texts, or data, they don't pay for both. He communicated that this universal truth has helped the industry in establishing a new industry norm in Reliance policy. Reliance will be charging only $1/10^{th}$ of the Standard Telecom charges.

• According to him, the importance of data connectivity will improvise information and knowledge.

• Manufacturing, data connectivity, computing, software, and information together will cause price performance to change very drastically. He conveyed his vision by saying life is going to be digital, we need digital revolution so *Jio* is offering a Digital life to the people.

• India is ranked 155th of 230 countries in using mobile, broadband, internet access in using digital facilities, with the help of *Jio* India will take the top 10 position globally, as claimed by Mukesh Ambani.

• As a tribute to Digital India's vision of Honourable Prime Minister, Mukesh Ambani dedicated *Jio* to India and 120 crore Indians.

Discussion

The *Jio's* Mission statement is self explanatory and gives us a wide scope to draw statements or comments relating to the future strategies of the company. Each and every person will be benefitted from *Jio* as the world is going digital so every Indian must also get an opportunity to move towards digitalization which can help them to access the information, new ideas and technology and things going around the world. It clearly indicates an attempt by which the concepts of *Kautilya* can be seen coming alive in the modern day world.

By analysing the mission of *Jio,* we can infer that Mukesh Ambani is adopting the policy of *Yoga Kashima* (welfare) for people. He wants people to believe that *Jio* is completely dedicated to them. As India is not so sound digitally and it is fastest growing economy and what a fast growing economy needs i.e. data at reasonable cost so that anyone can afford it. We all have seen the time before *Jio* was launched, the telecom companies were charging very high tariff for the high speed data. Here, Mukesh Ambani took up the opportunity of being first to provide 4G services at reasonable cost so that everyone can use it. Being a proactive and futuristic leader who has kept in mind the happiness of the people first to win over them is another strategy adopted by him from *Arthshastra.*

Reliance *Jio* promises to shape the future of India by providing end to end digital solution for business institutions and households and seamlessly bridging the rural urban divide. As stated earlier, *Yoga Kashima* means protection of people, welfare of people, wellbeing, prosperity, and happiness, the strategy adopted clearly indicates the same vision which is clearly communicated in the launching speech of the leader.

Reliance's vision for India is that broadband and digital services will no longer be a luxury item. Rather, Reliance envisions an India where these are basic necessities to be consumed in abundance by consumers and small businesses.

In the case of *Jio*, Mukesh Ambani has been acting as a good value based leader who is running one of the largest empires of Reliance Groups by creating wider pool of jobs which requires (technological knowledge and envisages in itself the concept of welfare state in itself). He is providing training to the subordinates so that they can update themselves with the changing scenario of the technological environment. (Making them well verse with the technology. Not only the employees, but we can see people of all ages of life, now learning to use digital technologies). The management of *Jio* is quite talented, based on experience, learning and the ability to foresee the future, which is truly supported by a visionary leader as stated by *Kautilya. Arthsahstra* focuses on the use of opportunistic tactics to grow and expand, which can be seen very clearly in *Jio's* strategy as it was launched at a time when no player in the market was even thinking of giving free 3G data. High tariffs were charged for the 3G usage by market leaders like Airtel. The use of 3G was beyond the reach of a common man. The speed of 2G Unlimited was pathetic. Opportunistic tactics i.e. free 4G services for the Indian customers were a big jolt to the competitors and a wind fall gain to the users across the country. The competitors were not at all aware of the plan of Reliance *Jio* which caused the shifting of the consumer base towards

Jio from other players drastically. The *mandla* system as propounded by *Kautilya* seems also applicable in these strategies, where he states that if the state is weaker than the competitor on some grounds one must go for negotiation i.e *Sandhi.* In the case of *Jio,* it made an agreement with the Airtel Company of Rs 1200 Cr for laying the optical fibre cables. As per *Kautilya*, first of all, the king must know his position with respect to other kings. If he is weak then he must go for *Sandhi* with the enemy king and if he is strong he must go for *Danda* (Open Attack). Mukesh Ambani is one of the richest people of India and chairman, managing director and largest shareholder of Reliance Industries Limited (RIL). RIL is a Fortune Global 500 company and India's second most valuable company by market value. Hence, he can be considered as a strong leader. Even if *Jio* is newly emerged phenomenon, Mukesh Ambani can go for open war against other competitors in the market. Undoubtedly, many of us are presently the users of *Jio,* we are well aware of the fact that how openly the leader of this company took a huge step of providing the free data that too unlimited as a open war against the competitors in the market who were charging high prices for the same. Further, Mukesh Ambani found that to offer high-speed internet to customers, it needs to outsource the latest technologies. So, as a result, *Jio* went into partnership with Bharti Airtel. Keeping another concept of *Arthsastra* in mind that is *Sandhi,* which means to enter into a partnership with the most difficult enemy, *Jio* signed a Rs. 1200 crore Indefeasible Right to Use (IRU) Agreement, under which Bharti Airtel will provide *Jio* data capacity on its i2i submarine cable. Here, Mukesh Ambani goes for *Sandhi.* As *Kautilya* specifies that if the king is weak in any sector, he must go for Sandhi.

As per *Kautilya*, the King must be futuristic and anticipate the future at best. In the case of *Jio*, this is what Mukesh Ambani did. Instead of focussing on old technology as used by the competitors i.e. circuit switch network, Mukesh Ambani uses the future-proof technology that will make *Jio* upgrade to future generations of network i.e. 5G, 6G much easier than that of the competitors.

Reliance *Jio* announced that they along with 8 other leading Global Telecom Operators have entered into a one of kind alliance that will allow them to tap into market opportunity of one billion customers in more than 80 countries around the globe. The members of this alliance include BT, Deutsche Telekom, Reliance Jio Infocomm Limited, Millicom, MTS, Orange, Rogers, TeliaSonera and TIM.

The aim of this alliance is not only to share their telecom networks, but also to partner with each other to bring innovative digital products and services. "The Alliance focuses on exchanging best practices on how to bring partner propositions to the market, on joint efforts in partner scouting and will also exchange knowledge about upcoming trends and services amongst the group". This strategy based on the concept of alliances, mergers and acquisitions gives a hint of the *Matsyanyaya* policy as stated in *Arthshastra*. Gradually a leader can vanish all the competitors of the market by establishing a stronger toehold.

This, as of today, the alliance has established relationships with 30 innovative partner businesses including AirBnB, Celltick, Disconnect, Idoomoo, Magisto, Mojio and Spotify working on the *Arthshastra Niti* of Sandhi and *Matsyanyaya.*

Conclusion

Reliance *Jio* has emerged as a major competitor and enemy for all other telecommunication companies. It has given a tough competition by delivering best and unexpected services which have not been done by any other company in India till date. Many of the strategies given in *Kautilya's Arthshastra* seems relevant in today's business scenario and proved true for *Jio*. Due to paucity of time and vast literature, only, a few areas could be explored, but I am sure other untouched areas must be having certain practical significance too in today's corporate world in relation to Arthshastra. Our old scriptures, literature etc are so deep and vast that they are capable enough to provide solutions to almost every modern business situation. Need is to open up, think for the traditional grounds and value our culture. Only then the future generation can understand and treasure the real significance of the treasured scriptures and carry that knowledge meaningfully for the generations to come.

Bibliography

Fisher, C. M. et al. (2001). Ethical stances in Indian management culture, *Personnel Review*, 30(6), pp:694-711.

Kumar, N. S. & Rao, U. S. (1996). Guidelines for value based management in Kautilya's Arthashastra, *Journal of Business Ethics*, 15(4), pp:415-423.

Zaman, R. U. (2006). Kautilya: the Indian strategic thinker and Indian strategic culture, *Comparative Strategy*, 25(3), pp:231-247.

Modelski, G. (1964). Kautilya: Foreign policy and international system in the ancient Hindu world, *American Political Science Review*, 58(3), pp:549-560.

Singh, R. R. (2004). Katilya's Conception of State, *The Indian Journal of Political Science*, pp:41-54.

Boesche, R. (2003). Kautilya's Arthasastra on war and diplomacy in ancient India, *The Journal of Military History*, 67(1), pp:9-37.

Waldauer, C. et al. (1996). Kautilya's Arthashastra: A neglected precursor to classical economics, *Indian Economic Review*, pp:101-108.

Muniapan, B. & Shaikh, J. M. (2007). Lessons in corporate governance from Kautilya's Arthashastra in ancient India. World Review of Entrepreneurship, *Management and Sustainable Development*, 3(1), pp:50-61.

Muniapan, B. (2007). Kautilya's Arthashastra and perspectives on organizational management, *Asian Social Science*, 4(1), P.30.

Liebig, M. (2013). Kautilya's Relevance for India Today, *India Quarterly*, 69(2), pp:99-116.

Gautam, P. K. (2013). Relevance of Kautilya's Arthasastra, Strategic Analysis, 37(1), pp:21-28.

Websites

http://www.bloomberg.com/research/stocks/private/committees. asp?privcapId=108116523

https://www.jio.com/ www.firstpost.com/ https://telecomtalk.info/

https://www.bloombergquint.com/ www.moneycontrol.com

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Talent Management in Digital Age
– A Case of Indian CPSEs

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Abstract

Financial health and overall success of a company depends upon the human capital it successfully attracts, employs, trains and retains. In this Digital age, Talent Management has retained a pivotal role in providing companies a competitive advantage over its peer groups. Biggest competitive advantage that Central Public Sector Enterprises (CPSEs) have by their side is the Talent Pool which exists currently with them; any pilferage would cost CPSEs dearly. CPSEs face a stiff competition from private companies as industrial sectors are open for the Private companies. The need for reinventing Talent management was never as profound as it is now. The research paper is an attempt to discuss the changing perspective of talent management in the digital age and shares the talent based initiatives across the globe. The paper also highlights the talent management practices of the public sector in an international scenario in comparison to India.

Keywords: Talent Management, Digital Age, CPSEs, India, Maturity Model

Introduction

Talent Management has been always been a critical area for driving rapid industrial growth, achieving competitive advantage, providing accelerated benefits from a business model to shareholders. New age digital corporations (IT & ITES) are leading the pack to roll out innovative tools for managing talent via reinventing employee performance evaluation systems by doing away with the bell curve methodology and adopting a more continuous 360 degree feedback system. More than 76% of private corporates have changed processes, 59% of the corporates have brought in alignment to corporate strategy in performance management systems, 30% of corporates have relooked at HR structures and capabilities amongst other factors (People Matters, 2018).

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Empirically, Talent Management in an organization was considered as a deliberate approach to attract, retain, motivate, and develop succession plan for people with the aptitude and ability to meet not only the current requirements but also the future organizational needs. In this talent-hungry market scenario, one of the greatest challenges that organizations are facing is to successfully attract, assess, train and retain talented employees. Talent Management encompassed in itself the entire process of Planning, Recruiting, Developing, Managing, and Compensating employees throughout the organization.

However, Talent Management and the tools associated with it are undergoing a transformational shift. (From being a reactive process to being a real time proactive processes with strategies to keep in pace with the neck breaking speed required for business growth and expansion.)

It is in this changing context, the objectives of the paper are:-

• To discuss the changing perspective of talent management in the digital age.

• To discuss the talent based initiatives across the globe.

• To highlight the talent management practices of public sector in an international scenario in comparison to India.

The Conceptual Background

Talent management can be defined as 'the systematic attraction, identification, development, engagement / retention and deployment of those individuals with high potential who are of a particular value to an organization' (CIPD 2006). Ulrich, (2006) takes a more holistic view to define *talent* as a combination of competence, commitment, and contribution. Talent management is an interconnected process, which is linked with various other HR functions and is very difficult to handle. The major concern is to align the employees with the organizational goals and retaining them for the long run to gain competitive advantage in the market. Talent management is an inter-connected process, which can be enumerated as follows:

Figure-1: The Talent Management Interconnected Process

Talent Management has become the essence of not only service-based industries but also of other industrial sectors because it revolves round the development of the skills and competencies of the employees, which is of prime importance to the organizational performance. Many Scholars have tried to analyze and study the talent management strategies in various sectors.

Maya. and Thamilselvanm (2012) mentioned in their study, employee perception on talent management strategy based on various demographic variables. Alternative Work Schedule (AWS), Employee Engagement Program, Mentoring/Coaching, Rewards and recognition system received highest mean score among all other strategies. Vanka and Pinapati, (2013) examined competency management as a tool for talent management in terms of talent acquisition, training and development and retention in Indian IT organizations. From senior management perspective, talent development, talent acquisition and talent retention were perceived to be important talent management areas in the use of competency framework. Both senior management and employees consider culture challenging assignments and work environment as enabling factors of talent management.

Table-1: Strategic Perspective to Talent Management

	Perspective Divine and Powell (2008)	Talent based initiatives	HR perspective
1	Competitive perspective	Give what talented people want otherwise they will be poached;	Pay for performance, Competitive pay, Career management
2	Process perspective	Managing talent is part of the everyday organizational life;	Employee engagement initiatives
3	HR perspective	Match right people with right job, strong ownership of HR team	Talent acquisition
4	Developmental perspective	Accelerated development paths for talented people;	Learning and Development initiative, Career planning
5	Cultural perspective	Talent management as a mindset	Diversity management, Managing organizational culture initiatives
6	Change management perspective	Talent management is a driver of change	Organizational Change, Organizational development initiatives

Source: Authors compilation based on the work of Devine and Powell (2008)

Talent Management – The Scope for Public Sector

The Public Sector Enterprises over the last many decades have played a significant role in the national development. The government owns or controls interests in key sectors including Infrastructure, oil, gas, mining, manufacturing and banking. Over the decades, the Government of India (GoI) has taken a number of steps to improve the performance of CPSEs including better corporate governance. Post liberalization, there has been an increased pressure on CPSEs to improve their competitiveness and the listing of CPSEs on the stock exchanges. However, a closer look at the data suggests that CPSEs are missing the bus and need to catch up with their peers to attract and retain talent.

Public sector organizations are confronted with the intensifying competition for talent and suffer from a chronic shortage of talented people. There is little empirical research on the specific talent management issues in the public sector. The empirical data are collected in two substitutes on TM in the public sector. The data show that TM is highly contextual both the organizational internal and external context affects the intended TM strategy, including the actors involved in TM and their interrelated logs.

Studies on talent management in the public sector have been limited to surveys of what is done in practice. Pollitt and Geert (2004) studied how the top civil servants and 'highfliers' of seven European countries were trained. Most studies have focused on single-country cases. Studies in Indian context are also limited to only studying HR practices and there are hardly any work on the existing TM practices and the scope for working on it. Mathe *et al.,* (2016) highlights that public sector enterprise also face competition and lack of resources and technology. In order to compete with private sector, effective talent pool in the form of employees is vital for PSEs. Rana, Goel, and Rastogi, (2013) studied BHEL's well-designed talent management strategies that are focused on competencies, knowledge, learning engineering and technological advancements.

The investigation was carried out using a case study analysis and concluded that talent management practices if effectively managed, results in the long-term satisfaction amongst employees. Thus, it was evident that an attempt is made to discuss the scope of TM practices in Indian context using secondary data. Currently, the Indian CPSEs are in need to relook at the Talent Management systems deployed. A total of 53,448 employees retired from select CPSEs in 2015 & 2016.

Table-2: Workforce Size and Attrition in Leading Indian CPSEs.

CPSES	No. of Employees (Excluding casual labour)			Attrition	Attrition
	2015-16	2014-15	2013-14	2015-16	2014-15
Bharat Sanchar Nigam Ltd.	211,086.00	225,512.00	238,277.00	12,765.00	14,426.00
Steel Authority of India Ltd.	88,655.00	93,352.00	97,897.00	4,545.00	4,697.00
Food Corpn. of India	68,959.00	73,961.00	74,021.00	60.00	5,002.00
Eastern Coalfields Ltd.	66,238.00	68,681.00	71,826.00	3,145.00	2,443.00
South Eastern Coalfields Ltd.	64,505.00	67,800.00	70,910.00	3,110.00	3,295.00

Source: Department of Public Enterprises Survey 2015-16

Amongst other factors, lack of expenditure on R&D (as a % of sales) should be examined as one of the major contributors towards the exodus. The listed 5 CPSEs which are top 5 employers have spent a meagre amount on R&D in respective organizations. For example: BSNL spent 0.28% (of sales) on R&D in 2014-15 & 2015-16, Similarly SAIL incurred an expenditure of 0.71% in 2015-16. Hence, the CPSEs are not only giving away an opportunity to the competition since the competition provides for enhanced capital for R&D which in turns delivers improved products at a lesser cost as production systems and processes are improved with investments which are critical, CPPSEs also are driving away best talents to the private industry.

CPSEs today employ JIT (Just in time) tool to manage talent which are reactive to an environmental situation. The example of CIL (Coal India Limited) is most

apt. As government is set to auction coal blocks for commercial production to private companies, CIL (Coal India Limited) has proposed pay scale revision for its 17,000 odd executives right from junior levels upto Chairman's to be more than doubled considering CIL (Coal India Limited) employs the best of the talent in the field in the country.

The above strategies of investing less in R&D, being reactive to market conditions and basis the situation designing the human capital investments are not helping the cause of Talent management. There are several CPSEs which have shown a sequential decline in Net Sales / Revenue from the levels of 2014-15 to that of 2015-16. (HPCL, IOC, SAIL, GAIL etc). Managing Talent at the time when major industry verticals are being opened up for private participation is critical.

Talent Management Approaches in Public Sector – The Global Context

Public sector organizations are confronted with the intensifying competition for talent and suffer from a chronic shortage of talented people (Thunnissen, M., Buttiens, D. 2017). Concern about the quality and quantity of current and future public leaders has led to calls for better talent management (Devine, M., & Powell, M., 2008). The concern for initiating TM practices in Indian context are to recruit from the widest possible pool of talent, better manage the careers of talents, facilitate more movement of talent staff across the public sectors, and encourage joint leadership development with other public sector organizations. The talent management should be linked with the goals and objectives of the organization which will improve innovation and flexibility and finally getting the competitive advantage over others (Mathe *et al.,* 2016).

Using the typology by Devine and Powell (2008) Table-3 compares the differing perspectives that each of the three governments has taken to manage their talent pool.

Table-3: Overview of the Talent Management Schemes

	Singapore	Malaysia	Thailand	India
Talent Recruit-ment	• Open Recruitments (fresh-graduates and mid-career entrants) • Pre-Service bonded Scholarships • Green harvesting • Scouting/ head-hunting	• Open Recruitments (fresh-graduates and mid-career entrants) • Pre-Service bonded Scholarships • Scouting/ head-hunting • Recruitments for Administrative and Diplomatic Service	• Open Recruitments (fresh-graduates) • Pre-Service bonded Scholarships • Public Sector Innovation Scholarship • Public Service Executive Development Program	• Open Recruitments (fresh-graduates and mid-career entrants) • Contractual hiring on special assignments
Talent Develop-ment	• Allocated training hours • Roadmaps for special schemes i.e. Management Associates Scheme and Administrative Service Scheme (AS) • High Potential Scheme	• Allocated training hours • Administrative and Diplomatic Scheme (PTD) • High Performing Officer Scheme	• Allocated training hours • High Potential Performance System (HiPPS) scheme • New Wave Leadership Development	• Allocated training hours • Career Planning • Assessment and Development Centre

	Singapore	Malaysia	Thailand	India
Talent Re-tention	• Competitive pegged to market pay structure • Performance-based bonus payouts • Performance-based promotions • High pay structure for administrative officers	• Base pay coupled with types of allowances • Performance-based promotions • Opportunities for post-graduate studies • Fixed pay increment structure	• Fast Stream Track • Performance-based system • Higher pay (about 1% higher for High Potential officers) • Perks in health care and pension schemes.	• Performance-based system • Higher pay with competitive perks

Source: Comparison of India based on work of Poocharoen, O. and Lee, C. (2013), Talent Management in the Public Sector a Comparative Study of Singapore, Malaysia and Thailand, *Public Management Review* Vol. X No. X.

Reinventing Talent Management in CPSEs

The following Talent Management components needs to be looked at:

• Employee Performance Evaluation Process: CPSEs are at different levels of maturity with regard to their Human Resources evaluation process in terms of competence, availability of specialized people and leadership pipeline. While government has taken a number of steps to improve the level of governance in the PSEs, there have been fewer initiatives to improve the system of Human Resources Development. Except for introduction of incentives in the form of Performance Related Pay (PRP), mostly it is left to individual PSEs to architect their Human Resources within the overall framework of the guidelines issued by the Department of Public Enterprises.

The concept of doing away with Bell Curve and providing for a continuous feedback system which is adopted by several companies in private sector incentivizes employees and supervisors with open communication structures, instant feedback and corrective actions deployment, alignment to departmental goals leading to alignment to organization goals and business objectives

• Training Content: Training content focuses on Industry segment, vertical strength, deep domain knowledge, automation, cognitive thinking, business approach, understanding and interpretation of financials, on the job shadowing with a buddy, assessments and accreditations.

• Training Decentralization: Decentralized training is delivered at functional level and each functional head is expected to devise their own training plan to develop the critical skills and talent for their functions with a yearly budget encompassing internal and external training programs (Management Development Program at IIMs, IPE etc).

• Functional Talent Pool Readiness: Emphasis on development of Talent pool in the core competence functional areas be it Petroleum, Mineral excavation, Power generation, Credit, Forex and Treasury; Involvement of Functional General Managers in design and conduct the programs to be the hall mark of this initiative resulting into availability of vast pool of train the trainers who would keep providing orientation to new batches, reducing panic hiring and arresting of large expenditure which is paid out to incentivize talent to stay put in an organization should the need arise in crisis situations. By doing this, the CPSEs protect their interests.

- Encourage Research and Projects: Tie up with Staff colleges in India, Institute of Public Enterprise in Hyderabad to provide for help in research projects and to harness human capital by providing intellectual engagement to enhance organization value.
- HR Leaders Training Programs: Existing HR officers to be groomed through a long duration program at IPE / leading management schools to develop their orientation from an IR mindset to developmental agenda in the digital age.
- Adopting to Digital Labor Platforms: CPSEs should look at a new wave of digital tools which can help companies to focus not only on hiring but also on managing, retaining, and developing employees. Digital labor platforms can pull these tools into an integrated whole as companies widen their labor pools, refine their recruiting and screening methods, and deploy their employees more effectively. Such tools and the platforms that include them, can put the right person in the right job identify gaps in skills, help employees as they gain new capabilities, chart career paths, and nurture the development of the next generation of leaders.

  In short, digital labor platforms occupy a place at the frontier of big data analytics and IT-enabled performance improvement. Companies can capture substantial value by applying digital innovations to some of the most critical organizational challenges: matching the supply of and demand for labor, boosting productivity, and getting the most out of people. McKinsey Global Institute research suggests that businesses deploying digital labor platforms to their full potential could increase output by up to 9 percent, reduce employee-related costs by up to 7 percent, and add an average of 275 basis points to profit margins.
- Increasing Employee Engagement: What's more, predictive analytics can identify employees likely to depart, flagging the need for mentoring, new jobs, or advancement to improve their satisfaction and engagement and thus decreasing employee turnover and raising productivity. In the USA, Bank of America, for instance, has made its employees more engaged by using Humanyze's sociometric badges (ID cards with embedded sensors that monitor interpersonal interactions) to gauge and improve the cohesion of call-center teams whose turnover dropped sharply as a result.

Wells Fargo has developed a predictive model to select the most qualified candidates for positions such as tellers and personal bankers. Working with Kiran Analytics, the company identified the qualities that characterize engaged, high-performing employees in client-facing positions and then screened for those attributes in new candidates. By the end of the program's first year, the retention of tellers and personal bankers rose by 15 and 12 percent respectively. CPSEs should take these models and approaches to deploy innovative and creative methods.

Therefore, CPSEs should reinvent Talent Management in the digital world. Companies that adopt digital labor platforms early and develop a more analytic and integrated approach to the workforce stand to gain significant advantages. Digital platforms could reduce the transaction and interaction costs of many day-to-day HR tasks; boost efficiency, innovation, customer service, and employee engagement; and reduce attrition. Many Private Sector companies have invested heavily to apply digital tools and big data analytics to other corporate functions but have hesitated at the doors of HR, where human judgment has always been central. They're understandably skeptical about the idea that a more quantified

approach to hiring can replace an interviewer's "gut feeling." External studies and our own research reveal that the analytic approach reduces personal bias and combined with human judgment, helps to land better hires. New technologies can demonstrably improve the customer experience while holding down the costs of attrition and training – and improving the workplace experience.

Proactive culture of development and performance management is needed to support the values and goals of the organisation. The talented employees have to be identified and programs should be conducted for retaining those employees. Organisations should focus on strengths and potential of talented candidates so that their carrier goals can be framed.

Global Talent Management Maturity Model Practices

In order to further improve Talent Management Models in digital age, we CPSEs should also examine the improvement opportunities which exist in the current environment. This comparison would be extremely important to course correct the model and build, test and deploy new agile models with wholesome attributes resulting in swift execution, real time dashboard information for quick and effective decision making, cost optimization, better controls and above all seamless end to end process harmonizing employee's interest and organizational goals. The figure illustrates how India compares to Global countries (including BRICS) in managing Talent.

Figure-2: Deloitte Talent Management Maturity Model Across Markets

		Global	India	China	Brazil
Level 4	**Inclusive Talent System** Clear, targeted, and well-communicated talent strategy • Fully developed and integrated talent activities aligned to desired strategic outcomes • Relationships with talent are systematic and tailed • Progressive diversity and inclusion approach reflected in policies and employee experience.	10%	9%	2%	2%
Level 3	**Managed Talent Relationships** Clear talent strategy and analysis-based understanding of the workforce • Nascent execution of systematic talent relationships • Targeted, integrated and effective leader growth activities • Strong learning culture • Moving beyond compliance-based diversity and inclusion activities	19%	12%	6%	8%
Level 2	**Critical Talent Growth** Increasingly clear talent strategy for critical talent segments • Emerging perspective on systematic talent relationships • Effective at implementing essential talent activities • Learning and leadership activities more targeted, prominent and integrated • Other talent processes more sophisticated and integrated	59%	76%	91%	89%
Level 1	**Essential Talent Activities** Almost no strategy used to direct talent management activities • Little understanding or interest in systematic talent relationships • Essential talent activities (e.g., performance management, talent acquisition) in place but often inconsistent or lacking intention • Talent activities often siloed	12%	3%	1%	1%

Source: Talent matters, (2017) Deloitte University Press

Conclusion

The new era of governing with 'Make in India', 'Skilling India' reforms in India will put extreme stress and pressure on CPSEs to perform and deliver, CPSEs would be expected to meet and improve on the cost models, quality, delivery systems, supply chain models and ultimately the products that they offer at a better price, as fast as or perhaps faster than the private competition could provide.

Biggest competitive advantage that CPSEs have by their side is the Talent Pool which exists currently with them; any pilferage would cost CPSEs dearly. During their operations, Effective and Efficient Talent Management which encompasses Organizational Goals, Resources aspirations, Training and deployability and technology are key to drive sustenance and results, its an era of perform or perish. In order to meet these objectives, effective talent pool in the form of enriched employees is vital for the success of CPSEs, The process of Talent Management from Hire to retire in the digital era requires being quick and accurate with real time output aiding top management to undertake effective decision making.

References

ReferencesCIPD(2006).TalentManagementUnderstandingtheDimensions.Chartered Institute of Personnel and Development. [Available at: http://Www.Cipd.Co.Uk/Nr/Rdonlyres/6101aa06-F0c7-4073-98da-758e91c718fc/0/3832talentmanagement.Pdf] [Accessed on 28 November 2017].

Talent matters (2017). Deloitte University Press. [Available at: https://www2.deloitte.com/content/dam/insights/us/articles/3422-Talent-matters/ER_3422_Talent%20 matters_vFINAL.pdf]

Devine, M. & Powell, M. (2008). Talent Management in the Public Sector, The Ashridge Journal. [Available at: http://www.ashridge.com/website/IC.nsf/wFARATT/Talent%20Management%20in%20the%20Public%20Sector/$file/TalentManagementInThePublicSector.pdf] [Accessed on 28 November 2017].

Kumari Mary Mathe et al. (2016). Significance of Talent Management in Public Sector Enterprises in India – A Case Study, *International Journal of Recent Research Aspects*, 3(1), pp: 95-99.

Maya, M. & Thamilselvanm, R. (2012). Employee perception towards talent management Strategies - an empirical study with reference to Software companies in Chennai city, *International Journal of Management (IJM)*, 3(1).

People Matters (2018). Bell curve might not be helping in differentiating performance, *Survey*, April, [Available at: https://www.peoplematters.in/news/performancemanagement/bell-curve-might-not-be-helping-in-differentiating-performancesurvey-17968]

Pollitt, C. & Geert, B. (2004). *Public Management Reform, A Comparative Analysis*, second edition, Oxford, New York: Oxford University Press.

Poocharoen, O. & Lee, C. (2013). Talent Management In The Public Sector - A Comparative Study Of Singapore, Malaysia And Thailand, *Public Management Review*, 10(10).

Rana, G. Goel, A. & Rastogi, R. (2013). Talent management: a paradigm shift in Indian public sector, *Strategic HR Review*, 12(4), pp:197-202.

Sita V. & Pinapati, A. (2013). Competency management as a tool of talent management: A study in Indian IT organizations, *Journal of economic development, management, IT, finance, marketing,* 5(1), March, pp:44-56.

Thunnissen, M. & Buttiens, D. (2017). Talent Management in Public Sector Organizations: A Study on the Impact of Contextual Factors on the TM Approach in Flemish and Dutch Public Sector Organizations, *Public Personnel Management*, 46(44).

Ulrich, D. (2006). The Talent Trifecta, *Workforce Management*, September, pp:32-33.

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The Impact of Determinants of Service Quality of Automated Teller Machines on Customer Satisfaction

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Abstract

Purpose – The objective of this paper is to identify the various determinants of service quality of ATM and to analyze the impact of various determinants of service quality of ATM on customer satisfaction in Indian banking sector. It also analyze the impact of demographic factors on the relationship of ATM service quality and customer satisfaction.

Design / methodology / approach – In this study factor analysis was used to measure the item and to test the reliability and validity. A structured questionnaire was used to collect the primary data through survey to ascertain the satisfaction levels and the total participants were 385. To identify the prominent determinants, regression, ANOVA and T test were applied and to analyze the customer satisfaction, frequency analysis was used.

Findings – The various determinants of service quality of ATMs have a positive impact on the customer satisfaction. The demographic factors such as educational background and age of the customers moderate the relationship of customer satisfaction and service quality of ATMs.

Practical implications – The various determinants of service quality identified in this study may help the banking sector to shift the customers from traditional banking to self service technologies like ATM and banking sector may improve its profitability position by reducing its operational cost through ATM as the transactional cost in ATM is less in comparison to transactions performed in bank branches by bank staff.

Keywords: ATM, Customer Satisfaction, Determinants of Service Quality, Availability, Security, Convenience

Introduction

Self service technologies have enabled the banking industry to improve its efficiency level and deliver various banking services through various modes such as ATM, SMS banking, online banking, phone banking etc. Over last one

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and half decade, Indian Banking sector have shown tremendous growth in self service technologies. Advancement in information technology has enabled the financial institutions to gather, process, analyze and provide information to the customers of institutions in a convenient way and now customers can avail the banking services at any time anywhere. Now banking institutions can deliver the services promptly and meeting the high expectations of the customers. ATM was invented by John Shepherd Barron on 27th June 1967 and it was installed by Barclay's Bank in North London, United Kingdom. According to Fanawopo (2006), ATM provides multiple assistance to the customers as customers need not to carry cash and anytime banking. All the self service technologies like ATMs, debit card transactions, credit card transactions, online banking, SMS banking, mobile banking are provided by Information and Communication Technology (ICT). It is more accurate, secure, fast and profitable technology and customers as well as bankers both are getting the advantages of these advanced banking services. ATM provides multiple assistance to the customers as customers can use ATMs for withdrawing cash, balance enquiry, mini statement requirement, fund transfer, request for banking accessories like cheque books, mobile number updation etc. Even now a day complex ATM machines are accepting cash, paying utilities bills like electricity bill, water bill, post paid mobile bills, etc. It is a win-win situation for the customer as well as for the banker. Banking institutions are also emphasizing on ATMs as it helps to reduce the work load of branch, less number of branches are required to open, limited number of cash counters in bank branches, limited number of bank staff is required which directly enhance the bank's profitability. According to Kantrow (1989) the proficiency of ATMs are higher than humans and the transaction cost through ATM is also low in comparison to humans. Even there is huge amount required to set up an ATM as a fixed cost but due to large number of transactions process possibility, the per transaction cost is low. It is also stated that ATMs can be a good substitute of humans which can help the banking institutions to reduce its operational cost by establishing more ATM systems. Humphrey (1994) described the automated teller machine as a genesis and bedrock of online banking. ATM machine is a cash dispenser which facilitates 24*7. This machine does not need any human resource and works independently and allows the customers to transact without any help of bank staff at any time. ATMs permits the customers to withdraw cash with the help of Personal Identification Number (PIN) after the insertion of debit card or ATM card. This PIN is provided by banking institutions to the customer and it is a unique 4 digit number which can be changed by the customer anytime for security purpose. Olatokun and Igbinedion (2009) stated that after consolidation of Banks, the deployment of ATMs by banking institutions the usage of ATMs by customers burgeoned. Fasan (2007) stated that banking institutions should focus on the deployment of ATMs or at least become part of the shared networks with other financial institutions. The usage of ATM cards has been promoted worldwide and many of the retail counters are accepting payments of goods and services through POS (Point of sale) machine. Chin et al., (2009) analyzed the various determinants of ATMs and reported that bank deposits, operating scale and operating cost are the prominent determinants of ATM investment.

Research Problem

This research study will give attention to the various determinants of service quality of ATMs and the impact of various determinants of service quality of ATMs on customer satisfaction. This research study is motivated by the various challenges confronting by the banking institutions with regard to ATM services. Now a day service quality is a most important area for academic research due to the change of attitude of customers towards service industry. There are multiple nuisances of ATMs in India and on regular basis customers use to face various problems while using ATMs such as ATMs does not dispense cash, debit the bank account of the customer without dispensing cash, card stuck in machines, power failures, internet connection failures and many more. So it is very important to identify the various issues which make a barrier between ATM and customer. Hence, it is also important to identify the various factors which motivates the customers to use ATMs in India.

Literature Review

Service Quality

Cronin & Taylor (1992) analyzed the various determinants of service quality of ATMs and examined the customer's perception towards these service qualities. Study provides a theoretical basis for service quality and author identified multiple determinants of service quality such as convenience, reliability, easy to use, responsiveness and fulfillment.

According to Joseph and Stone (2003) secure services, convenient location, user friendliness, personalization and special services for the specially challenged people are the determinants of service qualities of ATMs.

Mobarek (2007) identified waiting time and speed of transaction are the most prominent predictors of service quality of ATMs.

Dilijonas et al., (2009) categorized various factors which determines the service quality of ATM into fundamental resources such as secure locations, convenient, adequate number of ATM, user friendly system; important determinants of operation of ATM such as maximum speed, high uptime, cash back and minimum errors; and value based aspects like offerings to cover maximum needs and reasonable cost as the essential determinants of service quality of ATM.

Zeithaml (2000) stated that responsiveness, reliability, security and trust are not the only determinants of service quality. There are some other important determinants such as flexibility, accessibility, efficiency, ease of navigation, price knowledge, customization and site aesthetics.

Davies et al., (1996) designed a scale to evaluate the service quality and used fulfillment, privacy, compensation, efficiency, system availability, responsiveness, contact and compensation as prominent dimensions of service quality. They designed SERVQUAL instrument to evaluate the various determinants of service quality of traditional or non electronic banking services such as responsiveness, empathy, assurance, tangibles and reliability.

Simitis et Al., (2009) stated that convenient location, service coverage, user friendly system, secure location, adequate number of ATM, high uptime, cost,

minimum errors, cash backup, user friendly system and speed of ATM are the crucial determinants of service quality of ATM. Lovelock (2000) evaluated the various determinants of service quality of ATM like user friendly system, secure location, convenient location, functionality of ATM, adequate number of ATM. These determinants include efficient functioning of ATM and costs involved in the usage of ATM. Many researchers have different views about the effectiveness and usage of ATM.

Valarie (2000) analyzed the customer's perception in respect of responsiveness, security, system availability, efficiency, fulfillment is higher than other determinants of service quality of ATM. Most of the ATM managers evaluate the effectiveness of ATM by analyzing its cash dispense timings.

Kumbhar (2011) explained the cost efficiency of ATM and mentioned that there is an important correlation between customer satisfaction and ATM service and these are also the prominent determinants of service quality of ATM. Banking institutions are using the ATM technology to reduce its cost and render more satisfactory services to the customers.

Al-Hawari (2005) stated that banks should monitor the availability of cash in ATM during day time or during peak hours when maximum number of transactions happen. If the online network availability is at 90% but during the peak hours the number of transactions performed at 99% operating efficiency, then there could be an alarming situation which needs to be addressed on priority. It is also mentioned about the various determinants of service quality and considered it as a key factor for the customer satisfaction. Convenient location, secured places, proper functioning and user friendliness are the key determinants of service quality.

Narteh (2013) mentioned that debit cards having a magnetic strip on its back authenticates the transaction with the help of ATM PIN which helps the banking institutions to minimize the risk of hacking as security is a major concern for advanced technology based systems in all over the world.

Bansal and Jain (2018) stated about the effect of digital banking modes on Indian economy as after demonetization there is a drastic change in the attitude of the customers to adopt digital banking modes like transactions through debit cards, credit cards, ECS, online transactions, phone banking, SMS banking etc. have improved.

Subha and Vanithaasri (2012) proposed that there should be a biometric security system at the time of transaction through ATM which will examine the authenticity of the client.

Asabere et al., (2012) examined the case study of Botswana regarding service quality of ATM and identified that waiting time and speed of operation are the crucial predictors service quality of ATM. Study also analyzed another critical factors which are having influence on customer's choice of banking products and their adoption were Reliability, Security, Convenience, Flexibility and Ease of use and Time saving.

Maganjo and Mwangi (2012) mentioned that the specific features of ATM which permit the customer to transact anytime and anywhere have changed the operating style of public sector banks and now customer are more satisfied with these advanced technologies.

Rosmaini et al., (2013) stated that cost is the main determinant reported by the respondents which is having an influence on service delivery in ATM banking. If financial institution could not fulfill the service need of the customer and customers are dissatisfied with the charges levied by financial institutions. It is also proved in study that cost associated with the establishment of ATM has a strong evidence of customer satisfaction via ATM banking.

Weerasiri and Koththagoda (2017) mentioned that banks should not restrict their services only up to ease of use and accessibility but also focus on the improvement of other service qualities determinant like security aspect of ATM banking. Author has identified three independent variables which monitors the perception of the customers towards satisfaction and these variables are security, ease of use and accessibility.

Adeniran and Junaidu (2014) studied the important determinants of customer satisfaction in Nigeria and identified that ease of use is the most prominent factor for the customer satisfaction for service quality of ATM. The improvement in the service quality of ATM in terms of ease of use enhance the satisfaction level of customers and customers use this advance technology on regular basis. To retain the customers, financial institution should focus on various demographic factors which are the base of customer satisfaction also.

Afzal (2013) examined the various demographic factors and customer satisfaction and observed that there is a positive relationship. They have studied the various demographic factors such as gender, age, and qualification and mentioned that age is the most prominent demographic factor for customer satisfaction. The study has a significant relation of impact of customer demographics on customer satisfaction level was found. Customer satisfaction and different demographics are crucial elements for building loyalty among customers of banking industry.

Kim et.al. (2005), online banking is an easy way to operate financial transactions within a short span of time and now a day customers have shifted from traditional banking to cashless banking and using multiple modes of payment for fund transfer i.e. RTGS, NEFT and ATM withdrawal.

Khan (2010) examined the multiple dimensions of service quality of ATM in Pakistan and evaluated the impact of these dimensions on customer satisfaction. In study 500 national and international bank customers have filled a questionnaire. Author has collected the data on the basis of convenient sampling method and applied regression tool to analyze the data. Results indicated that security, reliability, privacy, efficient operation, responsiveness and convenience are significant dimensions of service quality of ATM. It is also mentioned that positive and significant service quality of ATM also contributes positiveness for customer satisfaction.

Customer Satisfaction

Andrew and Ramadhan (2011) explored various issues which affected the key decisions of banking institutions at the time of adoption of advance technologies like ATM, online banking, phone banking etc. Customer satisfaction is one of the main factor which affects the banking decisions.

Sureshchandar et al.,(2002) stated that customer satisfaction is very crucial for customer retention and reliability. It is also stated that customer satisfaction helps the banking institutions to enhance its market share, improve return on investment and its profitability position.

Singh and Komal (2009) evaluated the customer satisfaction level in banks and various problems faced by customers, behavior of consumers after using ATM service and fees charged by banks. It is also evaluated the relationship among various factors affecting the choice of ATM, facilities of ATM and its interaction with customer satisfaction. Customer satisfaction level has been evaluated in two levels i.e. material customer satisfaction level (MCS) and abstract customer satisfaction level (ACS). Material customer satisfaction level is related to the fees charged, frequency of problems faced and after purchase behavior of the customers. Abstract customer satisfaction level is related to the position of banks in terms of post purchase behavior, efficiency of facilities provided and the example of others using the ATM of the same bank.

Conceptual Framework

On the basis of in depth literature review, five service qualities of ATM has been identified which affected the customer satisfaction level. It is also identified that various demographic factors like gender, age and education level affects the customer satisfaction level. Conceptual framework is for the support of research study and it connects the existing concepts given by relevant theories as a basis for hypothesis. It provides an outline for the research. Through the research theories that explain relationships between ATM service quality and customer satisfaction a comprehensive understanding of the research issue can be achieved through conceptual framework.

Figure-1: Conceptual framework for Customer Satisfaction
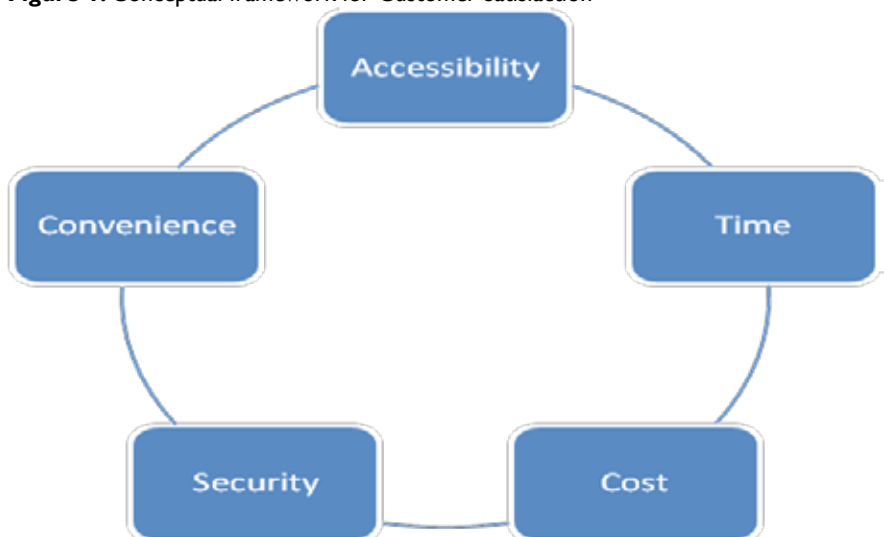
Research Objectives

- To identify the various determinants of service quality of ATMs.
- To analyze the impact of various determinants of service quality of ATMs on customer satisfaction.

Hypotheses

H_1 : The service quality of ATMs is having a positive impact on customer satisfaction.

H1a : The accessibility of ATMs is having a positive impact on customer satisfaction.

H1b : The time taken by ATMs to process the transaction is having a relationship with customer satisfaction.

H1c : The cost of ATM transaction is having a relationship with customer satisfaction.

H1d : The security of transactions through ATMs is having a relationship with customer satisfaction.

H1e : The convenience of ATMs is having a positive impact on customer satisfaction.

H2: Demographic factors moderate the relationship between ATM service quality and customer satisfaction.

Research Methodology

Data Collection

The statistical population of the study was all the ATM users in Delhi region of India. Due to the large sample size, lack of access to all members of statistical population, being costly and time-consuming, convenience sampling technique was used to obtain a representative and homogenous sample. Since the population size was unspecified, Cochran's formula was used and to calculate sample size is 385. Factor analysis, frequency analysis, ANOVA (analysis of variance) and regression are used in this study. IBM SPSS statistics 20 was used to perform statistical analysis.

Validity

- In this study factor analysis has been applied to reduce the total number of items to a smaller number of underlying factors.
- To extract the factors, Principal components analysis has been used.
- Varimax rotation has been applied to facilitate the interpretation of the factor matrix.
- The Bartlett's Test of Sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy were used to validate the use of factor analysis.
- The KMO index for all the analyses was found to be greater than 0.70, which indicates the presence of sufficient inter-correlations in the data matrix and the appropriateness of factor analysis.

Reliability

Cronbach's alpha has been used to describe the reliability of factors. If the value of Cronbach's alpha is equal to or greater than 0.7 then demonstrates that all the factors are internally consistent. In this study the value of Cronbach's alpha for customer satisfaction is 0.734 which is above 0.7 cutoff, so acceptable (Table-1). So the factors are reliable.

Table-1: Results of Cronbach's Alpha

Variable	Cronbach's alpha of the sample	Number of items for measuring the construct
Availability	0.726	04
Security	0.763	04
Time	0.741	04
Cost	0.714	04
Ease of Use	0.729	03
Satisfaction	0.734	03

Results

Normality

To apply the statistical tools, there is a prerequisite of the normality of data as normal data is an underlying hypothesis in parametric testing. To test the null hypothesis Kolmogorov-Smirnov (K-S) and the Shapiro-Wilk (S-W) tests has been used as the data come from a normally-distributed population. The sample size is 385 in this study we only consider the values of Shapiro Wilk test. The result of Shapiro-Wilk test is below 0.1 and significant values are above 0.05 in both cases. Hence null hypothesis is accepted and data are assumed to be normally distributed.

Demographic Distribution of Respondents

Equal number of males and females respondents have taken in this study. The results on the basis of age factor indicated (Table-2) that 89 respondents were in the age group of below 20 years, 151 respondents were in the age group of 20-30 years, 67 respondents were in the age group of 31-40 and 78 respondents were in the age group of 41 and above years. The major respondents were located in a range from 20 to 30 years. It had the highest response rate i.e. 39.22%, followed by the respondents in the age group of below 20 and the response rate is 23.11%, then the respondents in the age group of 41 and above years and the response rate is 20.26% and at last respondents in the age group of 31 to 40 years and the response rate is 17.4%.

As far as the educational qualification factor is concerned (Table-3), the highest number of respondents (165 responses) were on the secondary education level, 94 respondents were on Degree education level and 88 respondents were on Master Degree education level and only 38 respondents were on primary education level. In terms of percentage responses, the respondents of secondary education level had the highest response rate i.e. 42.86%, followed by the respondents of degree

level education i.e. 24.42%, followed by the respondents of master degree level education i.e. 22.85% and at last the respondents of primary level education i.e. 9.87%.

Table-2: Responses of Participants on the Basis of Age Factor

Age	Responses	% Responses
Below 20	89	23.11
20-30	151	39.22
31-40	67	17.4
41 & Above	78	20.26
Total	385	100

Source : Primary Data

Table-3: Responses of Participants on the Basis of Education Level Factor

Education Level	Responses	% Responses
Primary Level	38	9.87
Secondary Education	165	42.86
Degree Level	94	24.42
Master Degree Level	88	22.85
Total	385	100

Source : Primary Data

Demographic Factors on Customer Satisfaction

The output of the ANOVA analysis generate whether it has statistically significant difference between group means. The significance levels are 0.005 ($p = .005$) and 0.000 ($p = 0.000023$), respectively for the demographic factors of age and educational qualification, which are below 0.05, therefore statistically significant difference in the mean of customer satisfaction of service quality of ATM between the different age groups and different educational qualification. Levene's Test is a test which is applicable when the two conditions have the same or different amounts of variability between scores. The Sig. value is $p<0.05$. Scientifically, it means that the variability in the two conditions is significantly different. According to Sig. (2-tailed) there is no statistically significant difference between male and female.

Regression Analysis

Multiple regressions were used to study the effect of the independent variables on dependent variable. The results of multiple regressions is shown in (Table-4). The value of standard error of un-standardized coefficients for availability factor in regression analysis is 0.199, for security factor is 0.121, for time factor is 0.081, for cost factor is 0.134 and for convenience factor is 0.223 at sig. value 0.000. The results of the model summary and the data for regression analysis revealed in (Table-5) that the value of R was (.761); the value of R square was (.581) and the standard error of the estimate was (4.52031). The results of the multiple regression models indicate that Availability, Security, Time, Cost, Convenience factors explain the variance in customer satisfaction with significant effect.

Table-4: Standardized Coefficients in Regression Analysis

Model	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta**		
(Constant)	33.923	1.959		22.434	0.000
Availability	1.918	0.199	0.242	9.917	0.000
Security	1.976	0.121	0.357	17.041	0.000
Time	1.528	0.081	0.472	21.294	0.000
Cost	1.413	0.134	0.374	11.391	0.000
Convenience	1.694	0.223	0.239	7.695	0.000

Source : Primary Data

Table-5: Model Summary for Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.761	0.581	0.579	4.52031

Source : Primary Data

The correlation between the independent variables to dependent variable is described with a strength and direction of 0.761. The effect of independent variables on dependent variables proportion has been examined as a proportion of variance and the value is 0.581. Here dependent variable is satisfaction and the independent variables are availability, security, time, cost and ease of use. The adjustment of the R-squared (0.579) is that penalizes the addition of extraneous predictors to the model. Std. Error of the Estimate (4.52031) referred to as the root mean squared error. It is the standard deviation of the error term and the square root of the Mean Square for the Residuals in the ANOVA table (Table-6).

Table-6: Anova Table of Regression Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9274.26	1	9274.26	454.045	0.000[b]
Residual	6694.095	328	20.4		
Total	15968.355	329			

Source : Primary Data

On the basis of the F value (454.045) and the significance level (0.000) the model is statistically significant at 99% confidence level. The regression coefficients for the determinants of service quality of ATMs on customer satisfaction indicate that all the five demographic factors have an influence on customer satisfaction. The value of regression coefficients for availability ($\beta = 0.251$), security ($\beta = 0.346$), time ($\beta = 0.464$), cost ($\beta = 0.364$) and ease of use ($\beta = 0.240$). Finally it can be reported that the customer satisfaction is highly influenced by the demographic factors i.e. Availability, Security, Time, Cost and Ease of use.

Table-7: Research Hypotheses Summary

Hypotheses	Value	Result
H1 : The service quality of ATMs is having a positive impact on customer satisfaction.	R Square = 0.581 and Sig. = 0.000	Accepted

Hypotheses	Value	Result
H1a : The accessibility of ATMs is having a positive impact on customer satisfaction.	Beta = 0.251 and Sig. = 0.000	Accepted
H1b : The time taken by ATMs to process the transaction is having a relationship with customer satisfaction.	Beta = 0.464 and Sig. = 0.000	Accepted
H1c : The cost of ATM transaction is having a relationship with customer satisfaction.	Beta = 0.364 and Sig. = 0.000	Accepted
H1d : The security of transactions through ATMs is having a relationship with customer satisfaction.	Beta = 0.346 and Sig. = 0.000	Accepted
H1e: The convenience of ATMs is having a positive impact on customer satisfaction.	Beta = 0.240 and Sig. = 0.000	Accepted
H2 : Demographic factors moderate the relationship between ATM service quality and customer satisfaction.	One Way ANOVA Sig = 0.000; R^2=0.274 and T Test Sig. (2- Tailed) = 0.368	One way ANOVA = Accepted / T Test = Rejected

Source : Primary Data

Conclusion

The various determinants of service quality of ATMs which are having an influence on the customer satisfaction have been identified. The study revealed that the proposed model has been supported by the results. The results of the study indicates that all the five determinants of service quality of ATMs i.e. reliability, security, time, cost and ease of use are having a positive and significant effect on the customer satisfaction, which satisfies the H1 hypotheses. After that various demographic factors are also having an influence on customer satisfaction with the service quality of ATMs and it is observed that proposed hypotheses H2 was supported, which indicates that age of the respondents and the educational qualification of respondents are having influence the satisfaction levels of the customer towards the ATM services.

References

Adeniran, L. R. & Junaidu, A. S. (2014). An empirical study of automated teller machine (ATM) and user satisfaction in Nigeria: A study of united bank for Africa in Sokoto metropolis, *International Journal of Management Technology*, 2(3), pp:1-11.

Afzal, N. (2013). Impact of customer satisfaction and demographic factors on customer's loyalty in banking sector of Pakistan, *Middle-East Journal of Scientific Research*, 18(5), pp:721-727.

Al-Hawari, M. et al.(2005). Measuring Banks' Automated Service Quality: A Confirmatory Factor Analysis Approach, *Marketing bulletin*, 16.

Asabere, N. Y. et al. (2012). Measuring Standards and Service Quality of Automated Teller Machines (ATMs) in the Banking Industry of Ghana 1,

International Journal of Information and Communication Technology Research, 2(3), pp:216-226.

Bansal, N. & Jain, M. (2018). Progress in Digital Banking After Demonetization: Some Evidence, *IUP Journal of Bank Management*, 17(2), pp:50-59.

Cronin Jr, J. J. & Taylor, S. A. (1992). Measuring service quality: a reexamination and extension, *The journal of marketing*, pp:55-68.

Davies, F. et al. (1996). ATM user attitudes: a neural network analysis, *Marketing Intelligence & Planning*, 14(2), pp:26-32.

Dilijonas, D. et al. (2009). Sustainability based service quality approach for automated teller machine network. In: *Proceedings of the EURO-Mini Conference* . Vilnius Gediminas Technical University, Department of Construction Economics & Property. P. 241.

Fanawopo, S. (2006). World without cash-Nigeria's payment card grows significantly. [Available at: http://www.sunneswsonline.com] [Accessed on October 15, 2007].

Fasan, R. (2007). Banks, customer relation and use of ATM cards, Business Day Newspapers. [Available at: February 28, 2008].

Humphrey, D. B. (1994). Delivering deposit services: ATM versus branches, *Federal Reserve Bank of Richmond Economic Quarterly*, 80, pp:59 - 81.

Joseph, M. & Stone, G. (2003). An empirical evaluation of US bank customer perceptions of the impact of technology on service delivery in the banking sector, *International Journal of Retail & Distribution Management*, 31(4), pp:190-202.

Kantrow, Y. D. (1989*).* ATMs called 'only hope' to minimize costs, cope with shrinking labour force, *American Banker.*

Khan, M. A. (2010). An Empirical Study of Automated Teller Machine Service Quality and Customer Satisfaction in Pakistani Banks, *European Journal of Social Sciences*, 13(3), pp: 333-344.

Kim, B. M. et al. (2005). The determinants of consumers' adoption of Internet banking. In: *Proceedings of the Consumer Behavior and Payment Choice 2005 Conference, Boston, MA*.

Kumbhar, V. (2011). Factors affecting on customers' satisfaction an empirical investigation of ATM service, *International Journal of Business Economics and Management Research*, 2(3), pp:144-156.

Lovelock, C.H. (2000). *Service Marketing,* 4th ed., Prentice Hall International.

Maganjo, R. & Mwangi, P. K. (2012). Factors influencing customer demand for automated teller machine services in Nairobi: the case of Standard Chatered and Barclays Banks of Kenya.

Mobarek, A. (2007). E-Banking Practices and Customer Satisfaction - A Case Study in Botswana, 20th Australasian Finance &Banking Conference.

Musiime, Andrew & Malinga Ramadhan (2011). Internet banking, consumer adoption and customer satisfaction, *African Journal of Marketing Management,* 3(10), pp:261-269.

Narteh, B. (2013). Key determinant factors for retail bank switching in Ghana, *International Journal of Emerging Markets,* 8(4), pp:409-427.

Olatokun, W. M. & Igbinedion, L. J. (2009). The adoption of automatic teller machines in Nigeria: An application of the theory of diffusion of innovation, *Issues in Informing Science & Information Technology*, 6.

Ou, C. S. et al. (2009). Determinants of information technology investments: The case of ATM in an emerging economy, *Advances in Accounting*, 25(2), pp:278-283.

Rosmaini, T. et al. (2013). An empirical investigation of factors influencing customer service delivery of ATM users in Malaysia: Kano's model approach, *Advances in Natural and Applied Sciences*, 7(3), pp:269-276.

Simutis, R. et al. (2009). Enhanced Supervision of Automatic teller Machines Via Auto Associative Neural Networks. In: *ASMDA, Proceedings of the International Conference Applied Stochastic Models and Data Analysis* . Vilnius Gediminas Technical University, Department of Construction Economics & Property. Vol. 13, P. 450.

Singh, S. & Komal, M. (2009). Impact of ATM on customer satisfaction (A comparative study of SBI, ICICI & HDFC bank), *Business intelligence journal*, 2(2), pp:276-287.

Subha, M. & Vanithaasri, S. (2012). A study on authenticated admittance of atm clients using biometrics based cryptosystem, *International Journal of Advances in Engineering & Technology,* 4(2), pp:456-463.

Sureshchandar, G. S. et al. (2002). The relationship between service quality and customer satisfaction – a factor specific approach, *Journal of Services Marketing*, pp:363-379.

Weerasiri Sudath & Koththagoda Kosala (2017). The impact of automated teller machines (ATMS) service on customer satisfaction: A study based on state banks in Sri Lanka, *SAARJ Journal on Banking & Insurance Research,* 6((2).

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence, *The Journal of marketing*, pp:2-22.

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Influence of Macroeconomic Variables on Bombay Stock Exchange (BSE) Sensex

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Abstract

The Economic policies of number of countries have been brought changes in the world wide. The world market has integrated through the concept of globalization and liberalization. The purpose of this study is to analyze the effect of Macroeconomic variables on Bombay Stock Exchange Sensex through the data collected from the period of April 2008 to March 2018. Using SPSS software, the Descriptive statistics and Correlation developed which shows the relationship between share price & various factors affecting the same. The understanding of behavior of Macroeconomic variables which affects the stock market indexes is very helpful for policy makers, Institutional investors, traders and all other stakeholders to take investment decision.

Keywords: Macroeconomic, Inflation, Price, Institutional Investor, Investment Decision, Policy

Introduction

Indian economy is a developing mixed economy and it is the world's sixth-largest economy by nominal GDP and the third largest by purchasing power parity. Indian stock market is a physically institutionalized set up where instruments of stock market such as shares, bonds, debentures, securities, etc are traded. The stock market makes available information about the prices of trading to investors. The major stock exchanges in India are BSE (Bombay Stock Exchange), NSE (National stock exchange), and OTCEI (Over the Counter Exchange of India). Bombay stock exchange is the biggest stock exchange in India accounts for almost 75% of total stocks in India and there are four indices connected with the BSE such as Sensex, BSE-200, BSE-500, and National Index. The Indian stock market plays a prominent role in the growth of the Indian economy. There are numerous factors those made the investors to take decision to invest or withdraw of funds in the Bombay stock exchange Sensex. The macroeconomic variable is one the

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important factors in it. The macroeconomic variable that affected the Bombay stock exchange Sensex are gross domestic product, unemployment, inflation, money supply, budget deficits, international trade and exchange rate etc. The recent trend of the economy has been prevailed by the macroeconomic variable. Government can't make their rules, policies, and regulation without contemplating the macroeconomic variable. Macroeconomic indicators are already exhibiting deterioration as rupee is depreciating against dollar, inflation is mounting, interest rates and gold prices are increasing and industrial production has started to decline. The present study selected four variables such as WPI, REER, M3, and IIP to ascertain the influence of macroeconomic variables on Bombay Stock Exchange Sensex.

Literature Review

BSE Sensex is used as the assignee for the Indian stock market and Macroeconomic variables, which played an important role in Indian economy includes Exchange Rate, Balance of Trade, Average Call Money Market Rate, Inflation Rate, Industrial Production, 3 Months Treasury Bill Yield To Maturity, Money Supply, Gold Rate, MSCI, 3 months Treasury Bill Rate of US Market, Volume of BSE, Volatility of BSE, Foreign Institutional Investment and Mutual Fund.

This works "Influence of macroeconomic variables on BSE Sensex" reveals about the two broad categories. The first one reveals that impact of macroeconomic factors on stock prices and the second one discuss about the relationship between the stock market volatility and volatility in the macroeconomic indicators.

Chen et al (1986) examined that through the systematic functions of macroeconomic variables and non equity assets returns for US influence a set of macroeconomic variable on stock market by modeling equity return. The author found that the stock return via the effect on future dividends and discount rates by the economic state variables.

Ratanapakorn and Sharma (2007), causality analysis of stock prices positively relates with the industrial production, inflation, money supply, short term interest and also the exchange rate, but negatively related to long term interest rate , revealed that every macroeconomic variable considered caused the stock price in the long run but not in the short run.

Mukherjee and Naka (1995) was examined that the Japanese stock market was integrated with the set of variables such as exchange rate, inflation, money supply, industrial production index, the long run government, bond rate and call money rate indicating a long run equilibrium relationship between the stock return and the selected macroeconomic variables.

Mookerjee and yu (1997), that the connection between the Singapore stock returns and four macro economic variables such as narrow money supply, broad money supply, exchange rate and foreign exchange reserves revealed that there was a long run relationship with the stock prices where exchange rate did not from April 1984 to April 1993.

Ray and Vani (2003) revealed that the interest rate, industrial production, money supply, inflation rate and exchange rate have a significant influence on equity prices, while no significant results were discovered for fiscal deficit and foreign investment in explaining stock market movement by examining through

the linkage between the stock market movements and real economic factors in the Indian stock market using the monthly data ranging from the April 1992 to December 1997.

Ahmed (2008) investigated the relationship between the stock price and macroeconomic variables using the data from March 1995 and March 2007 and the results indicated that there was long run relationship existing between the stock price and FDI, money supply, index of industrial production and also revealed that there was a movement in stock price and movement in industrial production.

Pal and Mittal (2011) with the co integration of Johansen's framework revealed that there was a long run relationship exists between the stock market index and set of macroeconomic variables and also showed that inflation and stock exchange rate have a significant impact on BSE SENSEX but the interest rate and gross domestic saving were insignificant by investigating the relationship between the Indian stock market an macro economic variables by using the data from January 1995 to December 2008.

Statement of Hypothesis

Null Hypothesis

H0: There is no normality of macroeconomic variables and BSE Sensex indexes.

H0: There is no relationship between macroeconomic variables and BSE Sensex indexes.

H0: There is no impact of macroeconomic variables on BSE indexes.

Alternative Hypothesis

Ha: There is normality of macroeconomic variables and BSE Sensex indexes.

Ha: There is relationship between macroeconomic variables and BSE Sensex indexes.

Ha: There is impact of macroeconomic variables on BSE Sensex indexes.

Methodology

Statement of the Problem

Investor sentiments, Terrorism and International Political activity, Natural Calamity, Market and Company Information affect the Indian market. Since there is a fluctuation in the market, investors are hesitating to invest in long term funds. The study would be a tool for the investors to make a better investment strategy for long term investment.

Objectives

• To test in a normality of macroeconomic variables and BSE Sensex indexes.
• To examine the relationship between macroeconomic variables and BSE Sensex indexes.
• To analyze the impact of macroeconomic variables on BSE indexes.

Scope of Study

The study reveals the linkage between the Indian stock market and macroeconomic variables such as WPI, REER, M3 and IIP using SPSS during the period of April

2008 to March 2018. The study portrays about that how the macroeconomic variables influence the Bombay Stock exchange Sensex.

Importance of Study

The economic condition of the country is measured by the barometer called stock exchange. Every major change in country and economy is reflected in the prices of shares. The rise or fall in the share prices indicates the boom or recession cycle of the economy. Stock exchange is also known as a pulse of economy or economic mirror which reflects the economic conditions of a country. Stock market is important from both the industry's view and investor's view.

Bombay stock exchange plays a major role in the collecting money and encouraging investments, this study is designed to examine the influences of macroeconomic variables on BSE.

This study will help investors to analyze the major economic variables that affect the Bombay Stock Exchange Sensex and will provide an advantage to take investment decision.

Sources and Collection of the Data

The study will be using mainly secondary data. Information is obtained from www.rbi.org, www.bseindia.com and other sources.

Sample Selection

The sample selection of the study will include the four macroeconomic variables such as WPI, REER, M3 and IIP.

• WPI - Wholesale Price Index
• REER - Real Effective Exchange Rate
• M3 - Money Supply
• IIP - Index of industrial production

WPI

The wholesale price index is an index that magnifies and traces the changes in the price of goods in the stages before the retail level.

REER

REER stands for Real Effective Exchange Rate. It is the weighted average of country's currency in relation to an index or basket of other major currencies, adjusted for the effects of inflation.

M3

The M3 measurement includes assets that are less liquid than other components of money supply referred to as "near, near money," which are more closely related to the finances of larger financial institutions and corporations than to those of small business and individuals.

IIP

IIP – Index of industrial production is a measurement which represents the status of production in the industrial sector for a given period of time compared to reference period of time.

Study period

The study of the influence of macroeconomic variable on BSE attempted during the period of April 2008 – March 2018.

Tools Used for Analysis

To test the influences of macroeconomic variable

- Descriptive statistics
- Correlation
- Regression
- Coefficient and

Descriptive Statistics

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. It enables a reader to easily understand the set of data that has been collected. In our study descriptive statistics is used to analyze the summary of macroeconomic variables and BSE Sensex. We used measures of central tendency (mean) and measures of variability (standard deviation, range, maximum and minimum) to explain the data set.

Correlation

Correlation analysis is attempts to determine the degree of relationship between variables and testing whether it is significant and establish the cause and effect relationship. When two or more variables have a strong relationship with each other then there is a strong or high correlation, while a weak or low correlation means that the variables are hardly related. Correlation coefficient can range from -1.00 to +1.00. The +1.00 denotes that there will be a perfect positive relationship between the variables and the -1.00 denotes that there will be a perfect negative relationship between the variables. A Zero value denotes that there is no relationship between the variables. The correlation analysis is designed to examine the strength and relationship between Bombay Stock Exchange Sensex and Macroeconomic variables.

Regression

The regression analysis is a statistical device with the help of which we are in a position to estimate the unknown values of one variable from known values of another variable. The variable which is used to predict the variable of interest is called the independent variable or explanatory variable and the variable we are trying to predict is called the dependent variable or explained variable. The independent variable is denoted by X and dependent variable by Y. The analysis used is called the simple linear regression analysis-simple because there is only one predictor or independent variable, and linear because of the assumed linear relationship between the dependent and the independent variables. The term linear means that an equation of a straight line of the form Y=a+bX, where a and b are constant, is used to describe the average relationship that exists between the two variables.

Here, in our study we carried out this analysis to explore the effect of the macroeconomic variables on Bombay stock exchange Sensex. Here, the dependent variable is BSE Sensex and the independent variables are WPI, PEER, M3 and IIP

Analysis and Interpretation

Descriptive Statistics

Table-1: Analysis of descriptive statistics of Macroeconomic variables and BSE Sensex

Variables	N	Mini-mum	Maxi-mum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BSE SENSEX	120	-0.2389	0.2826	0.0082	0.0630	0.1115	0.2209	4.2895	0.4383
WPI	120	-0.3616	0.0258	0.0004	0.0342	-10.1284	0.2209	107.9350	0.4383
REER	120	-0.0556	0.0377	-0.0023	0.0168	-0.6800	0.2209	0.8573	0.4383
M3	120	-0.0189	0.0432	0.0105	0.0098	0.4117	0.2209	0.9768	0.4383
IIP	120	-0.5875	0.1740	-0.0012	0.0887	-3.3141	0.2209	19.2604	0.4383

Source: The data of the analysis computed in SPSS 20

Interpretation

The summary statistics of Bombay Stock Sensex and the four macroeconomic variables are given in the Table-1. Descriptive statistics has been analyzed the materialistic properties of data mean, standard deviation, skewness and kurtosis of each independent and dependent variables. The mean of the BSE Sensex is 0.0082. The maximum of BSE Sensex is 0.2826 where as the minimum is -0.2389. The mean is highest in case of M3 (0.0105) where as lowest in case of REER (-0.0023) when compared with the mean of BSE Sensex. REER (-0.0023) and IIP (-0.0012) are having the negative mean value. The mean of WPI, REER, M3 and IIP are 0.0004, -0.0023, 0.0105 and -0.0012, and the standard deviation of the same are 0.0342, 0.0168, 0.0098 and 0.0887 which has significant variability from mean. The standard deviation of BSE Sensex (0.0630) and IIP (0.0887) are more volatile when compared with the WPI (0.0342), REER (0.0168) and M3 (0.0098). The normality of the data has been determined through the values of skewness and kurtosis. Skewness is the measure of asymmetry of the distribution of a real valued random variable. Skewness of a systematic distribution, such as the normal distribution is Zero (0). Kurtosis is a measure of the probability distribution of a real valued random variable. The kurtosis of a normal distribution is 3. The table which was given above no variable equal to 0 and kurtosis equal to 3 which signifies that the data is not normal.

Correlation

Table-2: Analysis of Correlation between Macroeconomic variables and BSE Sensex

Correlations		BSE SENSEX	WPI	REER	M3	IIP
BSE SENSEX	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	120				
WPI	Pearson Correlation	-.011	1			
	Sig. (2-tailed)	.907				
	N	120	120			

REER	Pearson Correlation	**.285****	-.042	I		
	Sig. (2-tailed)	.002	.650			
	N	120	120	120		
M3	Pearson Correlation	.011	-.026	-.053	I	
	Sig. (2-tailed)	.909	.780	.566		
	N	120	120	120	120	
IIP	Pearson Correlation	-.158	-.027	-.043	-.228*	I
	Sig. (2-tailed)	.084	.773	.644	.012	
	N	120	120	120	120	120

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: The data of the analysis computed in SPSS 20

Interpretation

Table-2 indicates the correlation between the Bombay Stock Exchange Sensex and macroeconomic variables. Here we have used Pearson correlation analysis with two tailed and significant level at 1% and 5%. There is a positive relationship between the REER and BSE Sensex at the 0.01 level is 0.285. There is a negative correlation between the IIP and M3 at the 0.05 level is -.228.

The negative relationship portrays the inverse relationship between two variable where as the positive relationship indicates direct proportion relationship between the two variable. So REER and BSE Sensex are direct relationship and IIP and Money supply are inverse relationship. The correlation between Bombay stock exchange Sensex has weak relationship with the WPI (-0.011) and IIP (-0.158) and has strong relationship with M3 (0.011). WPI has the low degree of inverse proportion with the REER (-0.043), M3 (-0.026), IIP (-0.27).

REER has negatively correlated with the M3 (-0.053), and IIP (-0.043).

We can conclude that the proportion of variation BSE Sensex is week attributed to the macroeconomic variables. So to make our study more relevant and find out the relationship between the BSE Sensex and variables, we conduct regression analysis.

Regression

Table-3: Analysis of impact of Macroeconomic variables and BSE Sensex

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
I	.320ᵃ	.103	.071	.0607399357329	1.826

a. Predictors: (Constant), IIP, WPI, REER, M3
b. Dependent Variable: BSE SENSEX

Source: The data of the analysis computed in SPSS 20

Interpretation

This table provides the R and R^2 values. The R value represents the simple correlation between the dependent variable BSE SENSEX and the predictors such as IIP, WPI, REER and M3 is 0.320 (the "R" Column), which indicates a high degree of correlation. The R^2 value (the "R Square" column) indicates how much of the total variation in the dependent variable, can be explained by the

independent variable. The total variation between the BSE Sensex and the other variable is 0.103.

Durbin – Watson test is a test statistics which is used to test the autocorrelation in residuals from regression analysis. The Durbin Watson test reports a test statistic, with a value from 0 to 4, where:

- 2 are no autocorrelation.
- 0 to <2 is positive autocorrelation (common in time series data).
- >2 to 4 is negative autocorrelation (less common in time series data).

In this study the value of Durbin Watson test is 1.826 which portrays that positive auto correlation between the BSE Sensex and predictor variable.

ANOVA

The next table is the **ANOVA** table, which reports how well the regression equation fits the data (i.e., predicts the dependent variable) and is shown below:

Table-4: ANOVA: Analysis of variation between the macroeconomic variable and BSE Sensex

	Model	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	.049	4	.012	3.291	.014[a]
I	Residual	.424	115	.004		
	Total	.473	119			

a. Predictors: (Constant), IIP, WPI, REER, M3
b. Dependent Variable: BSE SENSEX

Source: The data of the analysis computed in SPSS 20

Interpretation

df – These are the degrees of freedom associated with the sources of variance. The total variance has N-1 degrees of freedom. The Regression degrees of freedom correspond to the number of coefficients estimated minus 1. Including the intercept, there are 5 coefficients, so the model has 5-1=4 degrees of freedom. The Error degree of freedom is the DF total minus the DF model, 119 – 4 =115. F and Sig. – This is the F-statistic the p-value associated with it. The F-statistic is the Mean Square (Regression) divided by the Mean Square (Residual): .012/.004=3.291. In this study the value of F statistic is 3.291 which are significant at the 0.014; through this we conclude that there will be impact of macroeconomic variable on Bombay Stock Exchange Sensex and also there will be a variation between them.

Coefficients

The **Coefficients** table provides us with the necessary information to predict BSE Sensex from WPI, REER, M3, IIP, as well as determine whether contributes WPI, REER, M3, IIP, statistically significantly to the model.

Table-5: Analysis of Coefficients of BSE Sensex from Macroeconomic Variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
I (Constant)	.011	.008		1.340	.183		
WPI	-.006	.163	-.003	-.038	.970	.996	1.004
REER	1.041	.332	.278	3.136	.002	.992	1.008
M3	-.056	.584	-.009	-.096	.924	.943	1.061
IIP	-.106	.065	-.149	-1.633	.105	.944	1.060

a. Dependent Variable: BSE SENSEX

Source: The data of the analysis computed in SPSS 20

Interpretation

Through this study we conclude that the model column shows the predictor variables (CONSTANT, WPI, REER, M3, and IIP**)**.

- WPI – The coefficient for WPI is -.006. when BSE Sensex increases by 1 unit then the value of WPI is decreases by -0.006
- REER – The coefficient for REER is -1.041. when BSE Sensex increases by 1 unit then the value of REER is decreases by 1.041
- M3 – The coefficient for M3 is-0.056. when BSE Sensex increases by 1 unit then the value of M3 is decreases by -0.056
- IIP – The coefficient for IIP is -0.106. when BSE Sensex increases by 1 unit then the value of IIP is decreases by -0.106

t and Sig. – These are the t-statistics and their associated 2-tailed p-values used in testing whether a given coefficient is significantly different from zero. Using an alpha of 0.05:

- The coefficient for WPI (-.006) is significantly different from 0 because its p-value is 0.970, which is greater than 0.05.
- The coefficient for REER (1.041) is no significantly different from 0 because its p-value is 0.002, which is smaller than 0.05.
- The coefficient for M3 (-.056) is statistically significantly different from 0 because its p-value is 0.924 definitely larger than 0.05.
- The coefficient for IIP (-.106) is statistically significant because its p-value of 0.105 is greater than .05.

Conclusion

The paper "Influences of Macroeconomic variables on Bombay Stock Exchange (BSE) Sensex" explored that influences of macroeconomic variables like WPI, REER, M3 and IIP on the performance of BSE SENSEX. It causes a severe impact on the every sector of Indian economy. The main theme of the study is to ascertain whether the Indian stock market is influenced by the macroeconomic variables to check this effect descriptive statistics, correlation and regression has been used. The data obtained through the study was not normal while variables

are analyzed through descriptive statistics. The study found that there is a direct relationship exists between the REER and the BSE Sensex at 0.01 levels and the inverse relationship exist between the IIP and M3 at 0.05 levels. Thus the REER affects positive relationship with BSE SENSEX and also the M3 and IIP inversely affects the BSE stock exchange. The study found that there is no normality between macroeconomic variables and BSE SENSEX indexes and also found that through the various statistical analysis we found that the there will be relationship between macroeconomic variables and Bombay Stock Exchange Sensex and there is a great impact on macroeconomic variables and BSE Sensex. It is observed from the findings that stock prices in BSE Sensex have been direct influenced by the changes in real effective exchange rate and also found that money supply which influence the inverse relationship with the IIP indirectly affects the stock price. The study reveals that the impact of macroeconomic variable has greatly affected the stock market volatility. The findings of the study were helpful for both investors to invest the money in BSE Sensex based on the stock market volatility which in influenced by the macroeconomic variables and also the policy makers as well as regulators to frame policies.

References

Abraham, R. & Harrington, C. (2016). Determinants of oil futures prices, *Theoretical Economics Letters*, 6(4), pp:742–749.

Adam, A. M. & Tweneboah, G. (2008). Macroeconomic factors and stock market movement: Evidence from Ghana.

Baranidharan, S. (2016). The Dynamic Long-run and Short-run Linkages between Exchange rates and BSE Sensex Return, *IPE Journal of Management*, 6(2), pp:92-105, P.14.

Baranidharan, S. & Vanitha, S.(2016). The Effect of Macroeconomic and financial related variables on stock market capitalization of global growth generator countries, *Journal of Contemporary Management Research*, 10(1), pp:1-27.

Baranidharan, S. & Vanitha, S.(2015). The Impact of Macroeconomic Variables on Indian Stock Market using Factor Analysis Approach, *IPE Journal of Management*, 5(2), pp:38-56, P.19.

Bilson, C.M. et al.(2001). Selecting macroeconomic variables as explanatory factors of emerging stock market returns, *Pacific-Basin Finance Journal*, P.9, 4, pp:401-426. [Accessed from http://ssrn.com/abstract=201908]

Brooks, C. (2002). *Introductory Econometrics for Finance*, 2nd Edition, Cambridge University Press.

Buckberg, E.(1995). Emerging stock markets and international asset pricing, *The World Bank Economic Review*, P.9, 1, pp:51–74.

Bhattacharyya, B. & Mukherjee, J. (2006). Indian Stock Price Movement and the Macroeconomic context – A Time Series Analysis, *Journal of International Business and Economics*, 5 (1), pp: 167-181.

Chen, N. et al. (1986). Economic forces and the Stock Market, *Journal of Business*, Vol.59, pp: 383-403.

Enders, W. (2004). *Applied Econometric Time Series*, 2nd edition, Wiley Series.

Engel, R. F. & Granger W.J. (1987). Co-Integration and Error Correction: Representation, Estimation, and Testing, *Econometrica*, 55 (2), pp: 251-276.

Engle, R. F. & Rangel, J. G. (2005). The Spline GARCH model for Unconditional Volatility and its Global Macroeconomic Causes, *CNB Working Papers Series*, Vol.13, pp: 1-28.

Fama, E. F. (1970). Efficient Capital Markets: A review of theory and empirical work, *Journal of Finance*, Vol.25, pp: 383-417.

Fama, E. F. (1981). Stock Returns, Real Activity, Inflation, and Money, *American Economic Review*, 71 (4), pp: 545-565.

Ghosh. et al.(2011). Presented paper entitled Determinants of BSE Sensex: A Factor Analysis Approach, for presentation at the BASAANA 2011 Conference held at Bloomsburg University of Pennsylvania during June 16-19.

Gul, S. et al.(2011). Factors Affecting Bank Profitability in Pakistan, *The Romanian Economic J*.

Harvey, C.R. (1995). Predictable risk and returns in emerging markets, *The Review of Financial Studies*, P.8, 3, pp: 773-816. [Accessed from http://www.jstor.org/stable/2962239].

Iang, G. et al. (2003). Determinants of bank profitability in Hong Kong, *Hong Kong Monetary Authority Research Memorandum*.

India CPI: http://www.globalrates.com/economicindicators/inflation/2008.aspx (Each year downloaded separately from Jan 2008 to Nov 2016 monthly data).

Chi, Jing et al.(2010). Do exchange rates affect the stock performance of Australian banks?, Inter.J. Banking.Finance, 7(1), P.3.

INR vs. USD [Available at: https://in.investing.com/currencies/usd-inr-historical-data].

Johansen, S. & Juselius, K. [1990]. Maximum likelihood estimation and inference on co integration - with applications to the demand of money, *Oxford Bulletin of Economics and Statistics*, 52(2), pp:169-210.

Khan, N.M. & Zaman, S.(2012). Impact of Macroeconomic Variables on Stock Prices: Empirical Evidence from Karachi Stock Exchange, *Pakistan Business Economics, Financial Sciences and Management,* [Available at:http://www.mid-day.com/news/2 003/jun/55974.htm]

Maysami, R.C. & Koh, T.S.(2000). A vector errorcorrection model of the Singapore stock market, *International Review of Economics and Finance*, P.9, 1, 7996. [Available at:http://www.sciencedirect.com/science/article/pii/S105905609 9000428].

Poon, S. & Taylor, S.J. (1991).Macroeconomic factors and the UK stock market, *Journal of Business*.

Baranidharan, S. (2018). Influence of Macroeconomic variables on Exchange rate volatility by using Structural Equation Model, *Galaxy International Interdisciplinary Research Journal,* 6 (5), pp:6-22.

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Impact of Information Technology in Indian Banking Industry: A Study on South Odisha

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Abstract

IT and communication has enlarged the importance of banking sector in Indian economy, without it today one cannot think about the success of banking industry. In past decade banks in India have invested in a huge amount for the adoption of information technologies like setting up ATMs, net banking, data warehousing, Tele banking, mobile banking, credit cards, debit cards, electronic payment systems and data mining solutions. These technologies adopted by the banks were to bring advancement in quality of customer services, helps in the fast processing of banking procedures. Deregulation has opened new opportunities for Indian banks to helped them to increase their revenues by diversifying into investment banking, insurance, credit cards mortgage and financing depository services etc. The role of banking in today's complex business has transformed from a mere intermediary to financial supermarket that is eligible to provide various financial services under one roof. It is observed that the demographic profile of customers such as gender and age have been tested with type of service and monthly income, academic qualification and occupation have been checked with frequency of use. It is recognized from the chi-square test, the null hypothesis for Gender and type of service, Age and type of service, Income and frequency level, Education and frequency of use and Occupation and frequency of use have been rejected and accepts the alternate hypothesis. In this research simple percentage analysis, principal component factor analysis, and multiple linear regression analysis and T-test are used.

Keywords: Deregulation, Banking Industry, Technology, Electronic Payment, IT Enabled Services

Introduction

Banking industry in every economy is considered as a backbone of its financial system, the same for India's case, is suffered by many challenging forces from political to social to technology. One such force that has greatly influenced the Indian banking sector is evolvement of information technology. Today the support of technology is very important for the success of banking industry. Without IT and communication one can ever imagine the accomplishment of success in

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banking industry, IT has broadened the scope for the application of banking sector in Indian economy. Technology has played a key role for creating an efficient banking system that responds effectively to the requirements of growing economy by providing adequate financial support in the back. In last decade the Indian commercial banks have heavily invested in the technologies like; credit cards, Tele banking, debit and credit cards, net banking, mobile banking, ATMs etc. Apart from this the adoption of advanced IT solutions helps the banks to function with data warehousing, electronic payment systems and data mining solutions, led to fast processing of banking operation, in turn brought improvements in quality of customer services. Heavy investments in IT have been made by the banks in the expectation of improvement in their performance. But important in the performance depends upon, differences in the deployment, use and effectiveness of IT.

Information technology in banking sector denotes to the usage of communication and information technologies to empower banks to offer better products and services to its customers in an affordable, reliable and secure way and help them to maintain competitive advantage over other banks. The importance of information technology is prominently felt in the financial sector in lines of the achieving competitive advantage for banks resulting in providing the efficient customer service.

Banking sector made it possible to transform the Indian economy, from an underdeveloped economy to a fast growing developing economy. The IT had increased the efficiency level in Indian banking system helped the banks to deliver the services at par with the international standards. IT solutions adopted by the Indian banks has increased the cost efficiency in service delivery as well as it has helped in realizing the small value transactions. The implementation of Electronic delivery channels like variety of cards and ATMs helped the banks to give the customers different feel in service delivery. All together web based banking, and mobile banking are the names of few outcomes of process automation and computerization of Indian banking system.

Transformation of Indian Banking

Indian banking has experienced a total transformation over the last ten years. Moving from a manual in a short span of time at such a low cost burdened with scale-constrained environment to a technologically grooved position to most analysts it seems like Indian system works in a miraculous way.

During early 1990s Information technology entered into Indian banking industry, it was the time when the Indian banking industry witnessed various measures in the sway of liberalization. One of the key objectives of Indian banking sector reforms was to boost operational self-sufficiency, imbibe flexibility and inculcate competition in the system and at the centre the chief aim is to increase standard of banking in India so that in Indian customers can experience the best of the service that is at par to the international best practices. In early 1990s under the strong oppose Indian policy makers and the then congress government eased the licensing norms for the private players to operate in Indian banking system, led to the establishment of new private and foreign banks, emerged by equipped with

latest technology. Deregulation has unlocked new opportunities for Indian banks to increase revenues. Now these banks were given free hand to operate like an investment banker, insurance distribution agency, credit cards seller and provider, mortgage financing institution, some leading banks were function like depository services etc. The banks after 1990s played the role of a financial supermarket where under one roof all above services can be provided, and it was a way beyond their previous role as a mere intermediary to banking service provider. Some of the significant contribution of Information Technology that brought a significant increase in banks Net Promoting Score (NPS) are; Automated Teller Machine (ATMs), MICR based cheque processing, card based payments, Electronic Clearing Services, RTGS/NEFT, Cheque Truncation System (CTS) or Image-based Clearing System (ICS), Core Banking Solutions (CBS), Telephony Banking with Interactive voice response (IVR), Internet and Mobile Banking.

Recent IT Trends of Indian Banks

The banking industry is still today going through a period of speedy change to meet global competition, technological challenges and the demand of the techno savvy end user. Therefore it will not be wrong to state technology today is a key differentiator in the performance of banks in India. The open market and level playing field pushed the public sector banks to look at innovation in adopting the IT in their process so that the customers will not move from them to the other banks.

Today, technology is not only changing the business environment but also it is bringing new methods of communication helping the banks to maintain value based relationship with their customers. Technology has not only broken the business barriers but has also brought about superior customer centric products and efficient product distribution channels. IT has brought customer relationship into fore front and established greater focus on providing cutting edge services to their customers. Adoption of IT is also viewed as a tool to reduce cost and it is perceived as an effective communication tool that will help people and institutions to get associated with the banking business. Technology has unlocked new markets, new products and services and it helped in efficient delivery channels for Indian banking industry. IT also provides the framework for banking industry to meet global challenges in the present internationally competitive environment.

Some of the Recent IT Devices Described as Below

Cheques are the age old negotiable instrument used for receipts and payments were previously could be realized through clearing house systems, but with the growth in the banking sphere and the growth in banking transactions this system was made automated, now today in place of manual clearing today automating the clearing process is adopted. Adoption of MICR helped the banks to overcome the limitation of cheque clearing within banking hours enabling the customers to get the credit quickly, helped in speeding up the clearing process. CTS (Cheque Truncation System) helped in effective reduction in the time required for payment of Cheques. Implementation of IT also helped to reduce the associated cost of transit and brought down the delays in processing helped in speeding up the process of payment collection after the cheques are realized. The ECS was the first of its

kind of Electronic Payments in India. It is a mode of electronic funds transfer from one bank account to another bank account using the mechanism of clearing house, very useful for bulk transfer of funds from one bank account to many accounts or vice-versa. Technology has truly transformed this payment system and reduced the transaction cost drastically. It enabled the banks to use EFT, it was a nationwide retail electronic funds transfer mechanism between the networked branches of banks, thereby considerably enhancing the security in the transfer of funds. RTGS system was developed with the use of IT that is a funds transfer mechanism where transfer of money takes place from one bank to another on a real time and on gross bases, helped the banks in reduce the transfer cost drastically. Core Banking Solutions (CBS) became a huge success due to the use of IT and computerization of bank branches. The networking of branches under CBS enables centralized data management and aids in the implementation of internet and mobile banking. IT has helped in establishing the major and upcoming channels of distribution in the banking industry, besides branches are ATMs, internet banking, mobile and telephone banking and card based delivery systems. IT helped Phone Banking a realized one as the customers can now dial up the banks designed telephone number and he by dialing his ID number will be able to get connectivity to bank's designated computer. Tele Banking is another radical mode of technology is a real innovation, which provided the facility of 24 hour banking to the customer. Tele-banking is based on the voice processing facility available on bank computers.

Review of Literature

Barnes et al. (2003) suggested that innovations carried out in modern time is in the areas of telecommunications that have facilitated the and introduced the entree of new systems for banking services in India, one of these is mobile banking; with the help of which a customer is able to interact with the bank through a mobile phone. Shu and Strassmann (2005) pointed out that the banks have failed to register improvement in their earnings even though these banks have taken every possible step to implement IT in their system. Kozak (2005) investigated and pointed out that the banks' run for maximizing profit along with the minimization of cost drove the banks to implement the IT in the banking system. This study designated optimistic relationship among the executed Information Technology and together productivity and cost effectiveness. Sathye (2005) investigated the influence of introduction of transactional Internet banking on banks' performance and its influence on risk profile of prominent credit unions in Australia. Amaoko (2012) pointed out the provision of banking services and the growth of banking industry in Ghana. Morufu et al. (2012) researched on banker's opinion of electronic banking and investigated the bank employees' perception about electronic banking in Nigeria and tried to find out how bankers see the threats and benefits related to electronic banking and its effects on delivery of banking service. Agboola (2006) investigated that payments are automated and absolute volume of cash transactions; have dropped under the influence of electronic transaction carried about by the implementation of ICT to the payment system in the developed economies.

  KPMG, in 2011 has brought out the article titled; ''Technology enabled transformation in Banking'' in The Economic Times Banking Technology,

Conclave 2011, in which KPMG has established that banking, will be transformed by new technology by 2015. If we will see the banking in today's perspective, in real term the IT has really transformed the Indian banking industry with customer delivery channel, friendly products. KPMG's assertion that easy and accessible services and competitive pricing would be driving forces-and technology shall pay a dominant role in all these really holds the ground. Today the banking service is centered on mobile application, so that the customer can take maximum advantage of banking services by using mobile devices and efficient payment systems that assures 24 x 7 services make banking services more widely available.

Narasimhan Committee (1998) The committee carried out research about the issues on technology up gradation and observed that the most of the technology that are considered suitable for India in some form or the other has been introduced in some weak form or as a trial project, but the anticipated success failed to be achieved because of the inter-linkage, lack of clarity and certainty on legal issues. Sobol and Cron (2006), in their work "Impact of information Technology on Indian banks", studied about the relationship between computerization of banks and numerous measures of firm performance in a larger context. They incorporated three comparisons of performance like;1) users versus non-users of computers, 2) three levels of usage, and 3) class of computer usage. The outcome that they came up with indicates that the overall performances of the banks are related to the computerization of their branches. Non-users tend to be small firms with about average overall performance. M.C.Sharma and A. Sharma (2013), in their work, "Role of Information Technology in Indian banking Sector" concluded that even then the Indian public sector banks that hold 75 percent of the market share in Indian banking industry they do not take initiative to adopt IT in their business, that have the potential to push their business to the next level. But the gravity of IT compelled them for moving towards the centralized database and subsequently made them to decentralize decisions making process. The problem pointed out by M.C. Sharma et al. is the nationalized banks do not possess desirable quality manpower those who can operate IT to its fullest extent. They further observed that the awareness and appreciation of IT are very much there in nationalized banks. What is needed is that these banks need to give further impetus in the philosophy of adoption of IT in their business operation. Bhosale, S.T. & Sawant, B.S(2011), in their work, "Technological Developments in Indian Banking Sector" explained about the role of banking sector in the development of Indian Economy, they pointed out the Indian banks need to optimally leverage the Information technology by increasing its penetration so that IT will be able to improve their productivity and operational efficiency, delivering products and services in a cost-effective way at a faster rate. The aim behind the adoption of IT according to them is Efficient and convenient customer service contributes to overall growth and development of the country.

Objectives of the Study

This study is carried out with the following objectives:

- To identify the demographic profile of customers involved in the use of modern day banking services.

- To ensure factors influencing on service accessibility of customers with the adoption of information technology enabled system.
- To examine constructive strategies to improve the technology enabled services from the customer's standpoint.

Research Methodology

This research could be started with the suitable research plan and methodology, the sample for the study is customers who are all accessing services in the commercial banks with the aid of information technology in Southern part of Odisha. The geographical limitation in this research is Ganjam District of south Odisha. This study randomly selects 372 samples at the various places across the sample area. This study collects data from the respondents, who are all having savings bank account and used information technology based service at least one year time frame. This study formulated on the basis of descriptive research design. The survey instrument has been constructed with three parts; first parts deals with demographic profile of respondents, second part seeks to ensure the factors influencing on service accessibility of customers with the adoption of information technology. Third part covers constructive strategies to improve the IT enabled service from the customer's point of view. The survey instrument was pretested; therefore questionnaire has been designed for collecting data. Collected data has been analyzed by using simple percentage analysis, principal component factor analysis, multiple linear regression analysis, Chi-square and T-test.

Results and Discussions

Analysis of Demographic Profile
The demographic profile of bank customers is analyzed presented in Table-1. Simple percentage analysis has been adopted to analyse demographic profiles of respondents.

Table-1: Demographic Profile of Respondents

Profile	Distribution	Frequency	Percentage
Gender	Male	243	65.32
	Female	129	34.68
Age	20-29	79	21.24
	30-39	55	23.92
	40-49	71	19.09
	50-59	78	20.97
	> 60	89	14.78
Qualification	Illiterate	64	17.20
	up to 10th	87	23.39
	Diploma/UG	83	22.31
	Post Graduate	69	18.55
	Professional	69	18.55
Monthly Income	< 10 ,000/- P.M	66	17.74
	10,000/- to 15,000/-	58	15.59
	15,001/- to 20,000/-	48	12.90
	20,001/- to 25,000/-	74	19.89
	25,001/- to 30,000/-	68	18.28
	> 30,000/- P.M	58	15.59
Marital Status	Never married	82	22.04
	Married	268	72.04
	Separated	22	5.91

Profile	Distribution	Frequency	Percentage
	Retired	67	18.01
	Housewife	54	14.52
Occupation	Employed	79	21.24
	Business/Profession	49	13.17
	Agriculture	69	18.55
	Student	54	14.52
	Internet banking	144	38.71
Type of Service	Mobile banking	92	24.73
	Direct branch visit	136	36.56
	Daily	131	35.22
Frequency of use	Weekly	142	38.17
	Monthly	68	18.28
	As and when	31	8.33

Source: Primary Data

It could be ascertained in the above Table-1, profile of the respondents are clearly analyzed. The gender level shows that about 65.32 per cent are male respondents while the rest 34.68 per cent are female respondents. Age of the customers apparently expresses that majority 23.92% are ranges between 30-39 years. 23.39% customers are up to 10th degree holders, monthly income of the respondents' states that 19.89% respondents are earning income of Rs. 20,001/- to Rs. 25,000/-. Marital status reveals that 72.04% respondents are married and 22.04% are never married / unmarried respondents. Occupation of the respondents are gathered in five intervals and shows that 14.52% are housewife, 18.01% retired category, 14.52% are students, 21.24% are employed in private and public sector, 13.17% are conducting their own business or profession, 18.55% are agriculturists. Type of service shows that 36.56% are directly visit to banks and frequency of use reveals that 18.28% customers are using once in a month technology enabled service.

Factors influencing service accessibility

Factors influencing on service accessibility of customers with the adoption of information technology enabled system is designed with six parts such as, banking services, add-on services and delivery, front office services, safety of services, technology-enabled services and reliability of services. Taking this fact into consideration, this analysis has been conducted with principal component factor analysis. In order to check the reliability factor among the factors and components, the Cronbach alpha has been executed and it strongly acknowledges that reliability of data ranges from 0.93 to 0.97.

Table-2: Factor Analysis

Factors	Variables	Factor Loadings	Eigen Value	% of Variance
	Internet banking	0.727		
	Mobile banking	0.765		
	Core banking	0.812		
	Debit and credit cards	0.813		
Banking Services (2.18)	Private Banking	0.682		
	ATM facility	0.825	13.67	26.59
	Electronic Fund Transfer	0.723		
	Agency Services	0.811		
	ECS facility	0.788		
	Cheque deposit in drop box	0.586		
	RTGS	0.672		

Factors	Variables	Factor Loadings	Eigen Value	% of Variance
Add-on Services & Delivery (2.26)	24x7 Service access	0.813		
	Competitive charges	0.816		
	Service quality improvement	0.811		
	Balance/Statement enquiry	0.812		
	Cheque book facility	0.799	10.77	19.59
	Online shopping provision	0.825		
	Standing instructions fulfilment	0.767		
	Demat services	0.682		
	Loan applications	0.711		
Front Office Services (2.36)	Speedy service	0.806		
	Short waiting time	0.735		
	Secured transactions	0.769		
	Guidance on service access	0.636	7.33	13.28
	Cash withdrawal	0.789		
	Provision of clear instruction	0.753		
	Retail banking	0.711		
	Convenient ATM Location	0.723		
Safety of Services (2.28)	Cheque/cash deposit	0.687		
	Transparency	0.753		
	Advanced Technology	0.776	5.57	7.79
	Better control on transactions	0.793		
	Convenient and time saving	0.624		
	Balance enquiry and maintenance	0.646		
Technology-Enabled Services (2.15)	Friendly technology to adapt	0.737		
	Less cost	0.726		
	Adequate voice prompts	0.769	3.31	4.59
	Access on necessity	0.716		
	Back office support	0.797		
Reliability of Service (2.17)	Error free service	0.801		
	Familiar on service	0.753	2.67	3.82
	Fast data transmission	0.576		
	Comfortable transaction	0.763		

Source: Primary Data

It is evident from Table-2, the factorial mean shows that banking services (2.18), add-on services and delivery (2.26), front-office services (2.36), safety of services (2.28), technology-enabled services (2.15) and reliability of services (2.17). The content validity ratio is also computed for all the components and the scale falls more than 0.5 only considered. This factor analysis is performed with six factors and 43 variables and it explains 75.66% of variance in data. Banking services is the main influencing factor to the customers, which covers eleven components and explains 26.59% of variance in data with Eigen value of 13.67. ATM facility, mobile banking, debit and credit cards, core banking and internet banking are most influencing factor to use banking services in this category. Furthermore, add-on services and delivery have noteworthy influence in accessing services because of information technology implementation in banks. It explains 19.59% of variance in data with Eigen value of 10.77. Information technology helps to avail 24x7 service access, cheque book facility, and balance enquiry often to the customers. Technology assists to deliver front-office services in an efficient manner; it has been loaded with seven components and 13.28% variance in data with Eigen value of 7.33. Speedy service and guidance on service access actively largely create benefit to the customers. Information and communication technology assist to deliver fast and fine service to the bank customers for all banking needs.

Technology ensures safety in many aspects to the bank customers; hence, safety of services is loaded with seven components. It explains 7.79% variance in data with Eigen value of 5.52. Customers are using technology-enabled services by themselves in lot of circumstances and it is loaded with five components. It explains 4.59% variance in data with Eigen value of 3.31. Friendly technology to adapt, adequate voice prompts and less cost are the leading factor, which influences use banking services. Finally, reliability in the use of service through technology creates several ifs and buts to the customers. Hence their belief as to reliability is checked with four components, it explains 3.82% variance in data and Eigen value 2.67. Error free service and familiar on service is largely influence on the use of banking services. All these six factors are largely influenced on the accessibility of banking services with the adoption of information technology.

The trustworthy of results derived in the factor analysis has been tested with multiple linear regression analysis. Access of banking service is dependent on various factors and components listed in the above factor analysis. As a result, the factors are taken as independent variables and service accessibility is assumed as dependent variable. Based on this fact, multiple linear regression analysis has been performed and results are presented in Table-3.

Table-3: Multiple Linear Regression Analysis

Independent Variable	Dependent Variable	Un-standardised coefficients		Beta Co-efficient	t-value	Sign.
		B	SE			
constant		0.824	0.754		-1.743	0.129
banking service		0.389	0.193	0.384	4.352***	0.016
Add-on service and delivery		0.255	0.085	0.179	1.821**	0.074
Front-office service	service accessibility	0.237	0.076	0.141	1.657**	0.168
safety service		0.209	0.077	0.133	0.669*	0.185
Technology-Enabled Services		0.164	0.079	0.137	1.652**	0.058
Reliability of Services		0.128	0.066	0.134	1.229*	0.132
R	0.799					
R^2	0.642					
Adjusted R^2	0.563					
F value	25.714***					

Note: *** significant at 1%, ** significant at 5% and * significant at 10%.

Table-3 evidences that all independent variables such as, banking service, add-on service and delivery, front-office services, safety of services, technology-enabled services and reliability of services are absolutely correlated with the service accessibility. The values of R^2 and adjusted R^2 are found as 0.642 and 0.563 respectively which shows that 64% variation on the banking service accessibility. Banking service is the highest beta coefficient factor (0.384) and its t-value is statistically significant at 1% level. It is widely recognised that it has considerable influence on the service accessibility of commercial banks.

Similarly, add-on services and delivery, front-office services and technology-enabled services are also significantly correlated with the service accessibility in banks and statistically significant at 5% level. Safety of services and reliability of services are also bearing influence in service accessibility with the adoption of information technology and statistically significant at 10% level. Based on the results from the above analysis, all six factors are having significant influence in the service accessibility of banking services.

Strategies to Improve Technology Enabled Services

The following variables are identified in pre-test and discussion with field experts, the customers are asked to rate the most important strategies to improve technology enabled services. One sample t-test is taken to analyse the above variables with assigning test value 3 to the ascertained variables.

Table-4: One-Sample T-Test

Variables	Test Value = 3					
	T	df	Sig.	Mean difference	95% Confidence Interval of the difference	
					Lower	Upper
SMS for cash transactions	22.366	371	.000	.972	.877	1.114
Weekly account statement	21.754	371	.000	.926	.864	1.106
E-Cheque provisions	18.268	371	.000	.855	.813	.976
Unlimited withdrawal	16.368	371	.000	.786	.678	.831
Cyber crimesafety	19.274	371	.000	.758	.686	.832
ATMs on rural areas	19.762	371	.000	.844	.753	.972
Increased memory storage	18.129	371	.000	.816	.775	.935
E-mail alerts	21.707	371	.000	.923	.926	.996

Source: Primary Data

It is obvious from the Table-4 that the calculated t-test values are significantly higher than the test value 3 at 5% level. It shows that technology enabled service mainly requires innovative strategies to develop. The customers are intensely believe SMS for cash transactions, e-mail alerts and weekly account statement are the important strategy to improve technology based services. Followed to that cybercrime safety and ATMs on rural areas are the second important factor to improve technology platform. Finally, e-cheque provisions, increased memory storage and unlimited withdrawal are also similarly gained importance in bringing improvement in technology based services.

Chi-square Test

The relationship between the demographic profile customers and type of service and frequency of use are tested with chi-square test. In this connection, null hypothesis (H0) states that there is no relationship between demographic profile of customers and type of service / frequency of use. As contrary to that alternate

hypothesis (H1) states that there is a relationship between demographic profile of customers and type of service / frequency of use.

Table-5: Chi-Square Test (Significant at 5% level)

No relationship between	DF	Table value	Calculated Value	Result
Gender and type of service	2	5.991	6.739	Rejected
Age and type of service	6	12.592	13.453	Rejected
Income and frequency level	9	16.919	18.235	Rejected
Education and frequency of use	9	16.919	19.266	Rejected
Occupation and frequency of use	12	21.026	22.271	Rejected

It could be identified in Table-5 that the demographic profile of customers such as gender and age have been tested with type of service and monthly income, academic qualification and occupation have been checked with frequency of use. It is recognized from above test, the null hypothesis for all cases have been rejected and accepts the alternate hypothesis. The calculated chi-square value is more than table value at 5% significant level. Hence it is concluded that there is a relationship between demographic profile of customers and type of service / frequency of use.

Conclusion

Information Technology offers enormous potential and various opportunities to the Indian Banking sector. It provides cost-effective, rapid and systematic provision of services to the customer. The efficient use of technology has facilitated accurate and timely management of the increased transaction volumes of banks which comes with larger customer base. Indian banking industry is greatly benefiting from IT revolution all over the world.

Another concept i.e. Virtual Banking or Direct Banking is now gaining importance all over the world. According to this concept Banks offer products, services and financial transaction only through electronic delivery channels generally without any physical branch. Owing to lower branch maintenance and manpower cost such banks are able to offer competitive pricing for their product and services as compared to traditional banks.

The Indian banks lag far behind the international banks in providing online banking. In fact, this is not possible without creating sufficient infrastructure or presence of sufficient number of users. Technology is going to hold the keys to future of banking. So banks should try to find out the trigger of change. Indian Banks need to focus on swift and continued infusion of technology.

The summary of responses obtained as well analysis of these responses is provided as under. The gender level shows that about 65.32 per cent are male respondents while the rest 34.68 per cent are female respondents. Age of the customers apparently expresses that majority 23.92% are ranges between 30-39 years. 23.39% customers are up to 10th degree holders, monthly income of the respondents' states that 19.89% respondents are earning income of Rs. 20,001/- to Rs. 25,000/-. Marital status reveals that 72.04% respondents are married and

22.04% are never married / unmarried respondents. Occupation of the respondents are gathered in five intervals and shows that 14.52% are housewife, 18.01% retired category, 14.52% are students, 21.24% are employed in private and public sector, 13.17% are conducting their own business or profession, 18.55% are agriculturists. Putt together the factors and variables explain 75.66% of variance in data. Customers are expecting some strategies to improve technology enabled service portfolio. The chi-square test rejects the null hypothesis about the relationship between demographic profile and type of service and frequency of use of banking services. It is widely acknowledged that the customers now seeks to fulfill their lifestyle aspiration at right times with right kind of technology for deposit, withdrawal and transfer of funds. This is leading to growing demand for competitive and sophisticated technology based services. The time has arrived to shift towards a customer-friendly approach; customers granted an opportunity to take pleasure in their share of benefits stemming from information technology development. Information technology has massive influence on the use of banking services and affords utmost satisfaction to the customer with new contemporary strategies often. It is concluded that information technology innovation in banks facilitate to avail all version of service to the customers in a cost effective way.

References

Agboola, A. A. (2006). Electronic Payment Systems and Tele-Banking Services in Nigeria, *Journal of Internet Banking and commerce*, 11 (3), pp:1-10.

Amaoko, A. (2012). The Impact of Information Communication Technology (ICT) on Banking Operations in Ghana, *International Journal of Business and Management Tomorrow*, 2 (3), pp:34-43.

Barnes, S.J. & Corbitt, B. (2003). Mobile Banking: Concept and Potential, *International Journal of Mobile Communications*, 1 (3), pp:273-288.

Bhosale, S.T. & Sawant, B.S (2011). Technological Developments in Indian Banking Sector, ISRJ, I(X).

Chang Y. (2003). *Dynamics of Banking Technology Adoption: An Application to Internet Banking*, Department of Economics, University of Warwick, January.

Kozak, S. (2005). The Role of Information Technology in the Profit and Cost Efficiency Improvements of the Banking Sector, *Journal of Academy of Business and Economics*, Vol.3, pp:321-330.

Morufu, O. & Taibat, A. (2012). Banker's Perception of Electronic Banking in Nigeria: A Review of Post Consolidation Experience, *Research Journal of Finance and Accounting*, 3 (2), pp:1-11.

Kaur, Rupinder (2012). Impact of information Technology on customer services with reference to selected banks in Chandigarh, I.J.E.M.S, 3(4), pp: 444-449.

Kulkarni, R. V. (2000). Changing Face of Banking from Brick and Mortar Banking to E - Banking, *IBA Bulletin,* January.

Karimi, J. et al. (2001). Impact of information technology management practices on customer service, *Journal of Management Information Systems*, 17 (4), pp: 125-158.

Lockett, A. & Littler, D. (1997). The Adoption of Direct Banking Services, *Journal of Marketing Management*, 13, pp: 791-811.

Jain, M. & Popli, G.S. (2014). Role of Information Technology in the development of Banking Sector in India, *Journal of Management and Research*, 3 (1).

Malhotra, P. & Singh, B. (2010). An analysis of Internet banking offerings and its determinants in India. Internet Research, 20(1), pp:87-106.

Sharma, M.C. & Sharma, A. (2013). Role of Information Technology in Indian banking Sector, *SSIJMAR,* 2(1), Jan-Feb.

Rani, I.(2015). A Study of Impact of Information Technology in Indian Bnaking Industry, *Abhinav National Monthly Refereed Journal of Research In Commerce & Management*, 4(6), pp: 23-30.

Sathye, M. (2005). The Impact of Internet Banking on Performance and Risk Profile: Evidence from Australian Credit Unions, *The Journal of International Banking Regulation*, 6 (2), pp:43-49.

Shu, W. & Strassmann, P.A. (2005). Does Information Technology Provide Banks with Profit?, *Information & Management*, Vol.42, pp:781-787.

Jesudasan, S., Pinto, P. & Prabhu, R. (2013). Impact of investment in information technology on performance of banks and national economy, *Gian Jyoti E-journal*, 3(2), Apr-Jun.

Kumar, Paritosh (2018). Impact of Information Technology in Indian Banking Industry, [Available at:http://www.bankingfinance.in/impact-of-information-technology-in-indian-banking-industry.html] [Accessed on 02-Jul-2018].

http://www.infosys.com/finacle/solutions/thought-papers/Documents/banking-in-India-evolution-in-technology.pdf

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