



DEVELOPMENT OF HUMAN RESOURCES BSNL'S RECENT STRUGGLES AND THE CURRENT CLIMATE: AN EXAMINATION OF THE ASSAM TELECOM CIRCLE

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Abstract

The Indian Telecom Sector has become one of the fastest-growing areas of development, and it has recently seen significant expenditures from both the government and commercial companies alike. Assam's telecom sector has seen several good chances during the previous decade. Assam Telecom Circle has achieved a lot in this sector in terms of accessibility and connectivity throughout the state. For a nation's wealth and income to grow, neither any resource can be used to its fullest potential without the active engagement of human resources. Accordingly, the study focused on how BSNL has been able to cope with recent challenges and the existing organizational climate by taking into consideration the Assam Telecom circle. The review study focused on the positive and negative effects of human resource development on BSNL and the telecommunication sector.

Keywords: *Human Resource; Human Resource Development; Telecom Industry; BSNL; Assam Telecom Circle*

1. Introduction

Human resources are ultimately in charge of putting even the most advanced technologies into action. The effectiveness of a strategy's application in achieving its goals is critical to its long-term success. With a well-thought-out strategy for employing information technology to make the human resources department internationally competitive, a firm may thrive. Scientific management, trade unionism, industrial psychology, human relations movements, behavioral sciences, HR specialists, and employee welfare are just some of the new forms that have led to today's state-of-the-art human resource management approaches. When it comes to human resource development (HRD), workers are expected to undertake a variety of duties related to their current or anticipated positions in various ways that are meant to assist them to acquire or polish their skills (Rao and Pereira, 1986). In addition, by enhancing their general talents, individuals may uncover their inner potentials and make full use of them for both their personal growth and the advancement of the business. Thus, an organization's health, energy, and sense of accomplishment are bolstered by the development of a strong culture of superior-subordinate interactions as well as cross-departmental cooperation and teamwork.

Some of the HRD mechanisms available to improve the overall climate of the organization include performance evaluation, demonstrating the ability, career planning and progression, learning & support, managerial effectiveness, quality of life at work, and the human resource management information system. Planning, designing, implementing, and evaluating educational programs are all part of HRD. Employer-

sponsored orientation sessions are typically required to assist new hires to acclimatize to their new work environment.

It is the only service provider in the information and communications technology (ICT) industry that is making concerted and deliberate efforts to close the digital divide between rural and urban areas. The company's enormous network allows it to be the only telecom operator in the country that can supply services to every part of the country except New Delhi and Mumbai, thanks to its extensive network. The BSNL offers a wide range of telecom services, from wireline to CDMA to GSM to broadband to carrier services to VSAT and VoIP, as well as a variety of other products and services. In the BSNL Tamil Nadu Telecom Circle headquarters, which is also based in Chennai, Secondary Switching Areas (SSAs) are comparable to Revenue Districts in their organization. SSAs in Coimbatore, Cuddalore, Dharmapuri, Karaikudi, Nilgiris, Pondyicherry, Salem, Thanjavur, and Tirunelveli are among the 17 that make up the region (SSA) (Gopinath, 2020).

1.1 Human Resource Management

A nation's wealth and revenue cannot be completely generated without the active participation of the nation's most important resource, the Human resources (HR) (Jucius, 1973). The development of traditional economies into modernized and industrialized economies is mostly due to the usage of physical and natural resources by humans. As a major component of national productivity, human resources hold enormous potential for raising national wealth if they are properly developed. Value is added to physical resources because of the human aspect, and the economy needs this dynamism. Also known as the "human factor," the term "human resources" refers to a collection of interconnected, mutually reliant, and mutually acting psychological, physiological, social, and ethical components. "Human factor" (Jicius, 1976). The most valuable and adaptable resource is humans (Renis, 1986). All economies, regardless of their structure and governance, must use it effectively to grow at an acceptable rate.

1.2 Human Resource Development

The second key HRM function, human resource development, pertains to performance evaluation and training operations. It is the primary objective of an assessment to offer workers feedback on their performance. This feedback enables individuals to examine the correctness of their behavior from the perspective of their co-workers and bosses, fix deficiencies, and increase their contribution. It is through HRD that an organization's employees are guided in acquiring or honing the skills and abilities necessary to carry out the various responsibilities associated with their current or anticipated future positions (Rao and Pereira, 1986). With the help of general talents, individuals may discover and utilize their inherent potential, benefiting both the individual and the company. An organization's overall well-being and motivation are boosted when there is a strong culture of interdepartmental collaboration and teamwork as well as superior-subordinate relationships inside the company. These include performance evaluation, prospective appraisals, career planning, and career development training and development, organizational development, quality of work-life, and human resource information system.

1.3 Telecom Sector in India

As of December 2021, India's telecom business has 1.18 billion users, making it the second-largest in the world. The total tele-density in India is 86.89 percent, with the rural market having a tele-density of 59.31 percent and the urban market having a tele-density of 138.79 percent. By the end of September 2021, the total number of internet users had grown to 834.29 million (narrowband + broadband subscribers), with 37.67 percent of them coming from rural regions. By the end of December 2020, there were 747.41 million broadband customers. By the end of December 2021, there were 792.08 million broadband subscribers. In addition, the average monthly data usage per cellular data user has grown by 22,605 percent to 14 GB in June 2021 from 61.66 MB in March 2014. Mobile virtual network operators (MNVOs), White Space Spectrum (WSS), 5G, broadband, and telephone service providers are all subsectors of the mobile phone industry. " In the past seven years, the Indian Telecom Tower industry has grown by 65 percent. From now until 2021, the number of mobile towers will rise from 400,000 to 660,000, according to an estimate. To reach 2.3 million units by 2021, the number of mobile base transceiver stations has grown by 187% since 2014. According to estimates, 5G technology would boost India's GDP by \$450 billion between the years 2023-2040. India is now conducting 5G Spectrum Trials to ensure widespread adoption of 5G technology. Indian mobile consumers are expected

to reach 920 million by 2025, with 88 million of those being 5G connections, making it the second-largest smartphone market in the world. In December 2022, India's Department of Telecommunications (DoT) is aiming to achieve a combination of 100 percent broadband access in rural areas, 55 percent mobile tower development, and 25 Mbps average internet speeds. By the end of 2024, 70 percent of India's towers will be built, broadband speeds will average 50 megabits per second, and 50 lakh kilometers of optical fiber will have been laid across the country (investindia.gov.in).

1.4 Bharat Sanchar Nigam Limited (BSNL)

On September 15, 2000, a public-private partnership was formed to form Bharat Sanchar Nigam Limited (BSNL). The previous Central Government departments of Telecom Services (DTS) and Telecom Operations (TO) handed over their responsibilities for delivering telecom services and network management to the new entity on October 1, 2000. (DTO). One of India's largest and most well-known telecom firms, it is a public sector telecom service provider. To maintain and grow its customer base in rural areas, BSNL is launching new ICT-based telecom services and working to strengthen and extend its nationwide high-quality telecommunications infrastructure. 43.74 million landlines, 8.83 million wireless local loops (WLL), 72.60 million GSMs, 37.885 fixed exchanges, 68.162 GSM BTSs, 12.071 CDMA towers, 197 satellite stations, 6.86.644 Rkm of OFC and 50.430 Rkm of microwave networks connect 623 districts, 7330 cities/towns, and 5.8 lakh villages across the country at any given time (bsnl.co.in).

BSNL is the only service provider making concerted efforts and implementing planned measures to bridge the digital divide that exists between rural and urban areas in the information technology industry. BSNL is the number one provider of all services in its license territory. To suit the individual demands of every customer, the company offers a wide range of tariff alternatives to choose from. Bharat Sanchar Nigam Limited (BSNL) has 90.09 million cellular clients as of 31 July 2011. It has been made available to all BSNL 2G customers with a 3G connection. To begin, BSNL has much more wireline phone customers than any of its competitors, accounting for 71.93 percent of the country's landline phone users. There are now 8.09 million broadband consumers in the United States today. BSNL had the fiscal year 2010-11 with a revenue of around Rs. 29,700 crores (coursehero.com).

3.2.1 The Following are the Details of the Services Supplied by BSNL as of 30.11.2021:

BSNL's network has been updated by adopting innovative technologies, including a 100 percent digital modern technologies switch network. BSNL has a subscriber base of 1208.35 lakh.

- a) **Wire-line Services:** The huge landline switching network consists of 27,329 exchanges with a capability of 228.62 lakh connections serving 76.48 lakh users.
- b) **Wireless Services:** BSNL has contained all cities, as well as a significant length of National Highways, Rail Routes, and State Highways. BSNL's cellular services also provide incidental coverage to rural regions that are enroute to National and key State Highways. There are 1131.86 lakh mobile lines out of a total capacity of 1142.50 lakh. BSNL has 84,544 BTSs that use 2G technologies, 62,408 Node-Bs that use 3G technology, and 8,637 e-Node-Bs that use 4G technology. The 3G mobile network has been installed in 6,272 cities and municipalities.
- c) **Broadband Services:** In January 2005, BSNL started its broadband services utilizing ADSL2+ technology. As of 30.11.2021, 23.06 lakh connections were active, with a total capacity of 100.18 lakh broadband ports deployed. BSNL has provided broadband services to 665 DHQ, 5,996 BHQ, 4,524 Cities, and 1,71,476 Villages.

BSNL offers Wi-Fi broadband connections. As of 30.11.2021, BSNL had 6.09 lakh, unique Wi-Fi users. BSNL also offers a variety of Value-Added Services (VAS) to its landline & mobile clients. VAS is often a third-party service supplied on a franchise model on a revenue-share basis.

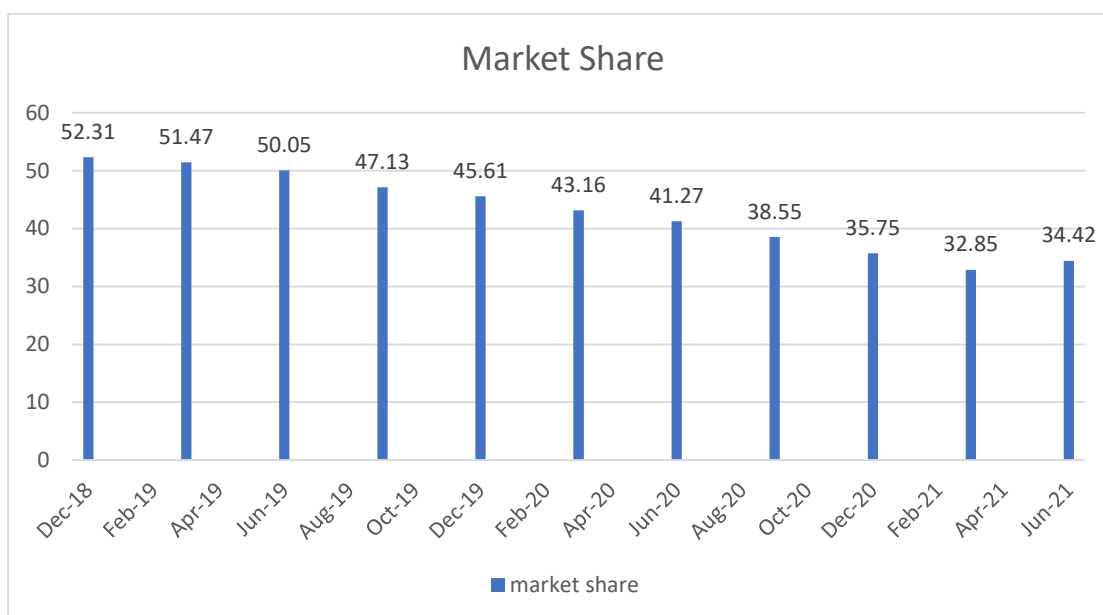


Figure 3.2: Market share of Bharat Sanchar Nigam Limited from December 2018 to June 2021

Sources: <https://www.statista.com/statistics/916238/india-market-share-of-bharatsanchar-nigam-limited-in-wireline-subscriber-base/>

3.2.2 SWOT Analysis of BSNL

BSNL is an Indian state-owned telecoms corporation based in New Delhi, according to NDTV or The Hindu (2015). Telecommunications service and connection management were transferred to it on October 1, 2000, after it was founded on September 15, 2000, from the old Central Government departments of DTS and Telecom Operations (DTO). BSNL is India's largest fixed-telephony provider, as well as the country's major broadband service provider (with a share of the market greater than 60%). However, the company's sales and market share have declined dramatically in recent years as a result of fierce competition in the Indian telecoms industry.

BSNL is India's largest and most experienced communications provider, according to the company's official website (CSP). It has twelve million customers as of June 2018. Only Mahanagar Telephone Nigam Limited administers the service in Mumbai and Delhi, two of India's most important metropolises (MTNL). It also claims that during the last 24 years, the business has evolved to become India's top & one of Asia's most important telecom operating organizations. Significant changes in telecom operational technologies have occurred in recent years as a result of exchange modernization and computerization, resulting in a transition from labor-intensive land-line business to capital-intensive fresh technological advances like 3G, Wi-Max, and Digital Certification, VOIP, MPLS, Broadband, IPTV, Wi-Fi, or Wi-Max. Other mobile carriers & basic service providers face stiff competition from BSNL. This has put extra pressure on profitability as rates have

been decreased, and on customer retention & acquisition, which will intensify as more new operators enter in the coming years. These changes need a whole new strategy for workforce planning.



Figure 3.3: SWOT Analysis of BSNL

1.5 Human Resources Development in BSNL

The Bharat Sanchar Nigam Limited (BSNL) has developed a convergent IP infrastructure, which includes phone, data, and video services. The system is built on world-class multi-gigabit and multi-protocol convergent IP infrastructure. Additionally, the business possesses extensive knowledge and competence in the design, implementation, network integration, and maintenance of switching and transmission networks, as evidenced by the existence of an ISO 9000 accredited Telecom Training Institute, among others. If a firm cherishes its workers, it's only logical that the company would want to assist them in developing their talents, knowledge, and expertise while also satisfying their ambitions and aspirations. Training classes held regularly by BSNL ensure that its employees are always learning and improving their abilities.

Employees in Telecom infrastructure are given technical development training so they may tackle the problems of the future. Computer instruction, instilling management, other skills, and so forth in BSNL's Training Centers located around the country.

- Bharat Sanchar Nigam Limited has a workforce of around 2,90,000 highly skilled and experienced employees.
- BSNL believes that its highly-skilled workforce is the most valuable asset.
- BSNL believes that its future success depends on the employees who serve the clients and keep in contact with them.
- The country's BSNL training centers are equipped with state-of-the-art equipment to teach staff about technical advancements, modernization, and computerization. Facilities including lecture halls, audio-visual aids, and libraries are available at these centers, as well as dormitories.

- Ghaziabad's ALTTC and Jabalpur's Bharat Ratna Bhimrao Telecom Training Centre are among the best in terms of all-in-one training centers. The National Academy of Telecom Management has been in existence for some time now.
- There are a variety of programs available for students at these centers, such as technology-based training, training for attitude change, and so on.

If a person is happy in his or her job, they may put in more effort to show the boss how capable they are. A contented worker, on the other hand, may get away with not producing more just because he is acquainted with the supervisor.

1.6 Assam Telecom Circle

The Indian telecommunications business has risen at an exponential rate during the preceding two decades. Since liberalization took effect in 2001, the Indian telecoms industry has undergone its most significant and fundamental overhaul to date. Various zones have been formed around the country to guarantee that this business operates and is administered in the most efficient manner possible. They are referred to as 'Circles,' and they're clustered together roughly along state boundaries. It is specified by the state's borders that the Assam circle is formed. Assam's Licensed Service Portion provides comprehensive coverage for this area of the country. As a result of the increasing demand, the telecom business in the Assam Circle is growing rapidly. Over the past decade, it has experienced tremendous growth in the number of customers in both rural and urban areas (Baruah and Baruah, 2017).

2. Literature of Review

"Development of human resources BSNL's recent problems and the present situation in connection to the Assam telecom circle" is the basis for this introduction. Human resources, management, and growth in BSNL as a result of the current situation of the market as well as the challenges they encounter, and the organizational environment also play a role in the review.

Each of the following parts is a portion of the literature review:

- a. Telecom Sector, Its Growth, and Impact of Covid-19 on the Telecom Sector
- b. Human Resources in Telecommunication Industry: National and International
- c. Development of Human Resources in BSNL

2.1 Telecom Sector, Its Growth, and Impact of Covid-19 on the Telecom Sector

The iatrogenic economic process that governments had gone through as a result of telecommunications privatization has been discussed. When the telecommunications industry was opened up to the private sector, it saw a significant increase in revenue. The advancements in the telecommunications industry aided the development of other industries. As a result of the recent privatization of Telecommunications, it was logical to hire someone who can assist India flourish in all areas (Shaik, et al., 2017). In the recent decade, the telecommunications industry has shrunk from a slew of players (including the public sector operator) to only four. As a result, a qualitative shift occurred in the ability to consistently to the telecom industry. For now, incumbents had to dig in their heels and invest even more money to maintain their market dominance. Some lesser competitors were brought to their knees by Reliance JIO's disruptive 4G offering, according to the report. As a whole, the industry has seen a considerable reduction in gross revenue again for incumbents in the year 2017-18 (Mahadevan, 2018). The COVID19 virus, one of the world's largest pandemics, was spread over the globe in 2020, and governments throughout the world prepared for this eventuality. Global telecom service providers played a large and crucial part in the current COVID 19 epidemic, which has had a greater impact on the telecommunications industry. A single network was conceivable before the epidemic, but now that the government has mandated that all officials (private sector) work from home, this was no longer practicable. People who were at home and had nothing to do with outings preferred to spend their time chatting, surfing, playing games, and more, which added a burden to the service supplied by telecom (Singh and Garg, 2020).

2.2 Human Resources in Telecommunication Industry: National and International

There is no doubt that human resources are critical to a company's long-term success in today's global market. Vietnam Post and Telecommunication Group firms' human resource management practices had a direct impact on their human resource management operations. To gain a competitive edge in human resources, Vietnam Post and Telecommunications Group enterprises had a high-quality workforce and an effective human resource management strategy (Pham, 2020). "Recruitment & Selection," "Staff training & Development," "Employee motivation & Rewards," "Teamwork & Collaboration," "Compensation & Benefit," and "Job Description & Analysis" were the most heavily weighted factors in the study of Somaliland's telecommunications companies, while "Job description and analysis," "performance & promotion," and "Compensation & Benefit" were the least heavily weighted factors (Mohamed and Abdi, 2021).

2.3 Development of Human Resources in BSNL

When it comes to services, Telecom, the fastest-growing service sector, and mobile services play a significant part in this growth. Furthermore, BSNL, the largest public-sector telecom business, provides several services with the most advanced technology while competing with a huge number of private operators, yet customer satisfaction was poor. Additionally, the use of machine learning in CRM has become increasingly important, presenting BSNL with several prospects for maintaining dependable clients as well as future customer selection based on their behavior. Investigating the factors that influence CRM using machine learning techniques in a computer environment with high data volumes and proposing the notion that systems may learn from CRM data, find patterns based on specified criteria, and make decisions with little human participation (Routray, 2021). Organizations (e.g., BSNL) were increasingly relying on human resource management to analyze their human resources and human resource development processes to determine the level of work satisfaction amongst their employees (Gopinath, 2020); similarly, in the same year, Gopinath R. HRD practices (Recruitment and Selection (RS), Training and Development (TD), Appraisal and Reward (AR), Performance Management (PM), Managing People (MP), Promotion & Transfer (PT), Compensation Management & Welfare Measure (CM & WM), Employee Health & Safety (EHS), and Industrial Relations (IR)) had a significant impact on the job satisfaction of the employees studied (Gopinath, 2020). In collaboration with Dr. Shibu, R. Gopinath has made significant progress. As part of his investigation on the Promotion and Transfer of BSNL Employees, he examined many aspects of human resource management (Gopinath and Shibu, 2014 a), employees' mental health and welfare are all closely linked to a company's quality of industrial relations and people management (Gopinath and Shibu, 2014 b), The process of hiring and evaluating candidates (Gopinath and Shibu, 2014 c), the incentive for promotion and transfer as well as an evaluation (Gopinath and Shibu, 2014 d).

3. Discussion

In the globally competitive and challenging business scenario, the success of the Indian industry besides other factors will be to a great extent influenced by how it manages its human resources – the employees who make things happen. The conventional methods of managing males have experienced a radical transformation. To address the challenges of the future millennium and to attain organizational excellence, responsible trade unions, productivity-oriented work practices, and forceful professional management are essential. It has become necessary for the Indian telecom business to focus on the internal development of human resources as the market situation has changed. Enhancing and connecting workers' skills and capacities to meet market demands is essential if Indian government organizations are to preserve and grow their competitive edge in the future. Human Resource Development (HRD) is primarily concerned with how people interact at work and how it affects the business. Customers in the Assam Telecom Circle prefer to choose private sector cellular service providers over public sector ones. Shah (2008) stated that BSNL, the sole state-owned telecom provider, has seen its revenue and market share plummet in recent years as a result of subpar public sector management and severe competition. Kumar and Uma (2013) Explained that mobile users prefer private cellular operators. According to Chaudhary (2014) and Yadav (2014), it has been observed that customer service and client happiness are the primary concerns of any bank or telecommunications company. The sole public sector telecommunications operator in the Assam Telecom Circle (BSNL) should thus start prioritizing customer satisfaction by delivering high-quality services that meet their specific demands. For a government-owned cellular service provider to compete in the Assam Circle, they must prioritize customer feedback,

frequent follow-up, and effective management, and therefore achieve suitable networks and increased productivity.

4. Conclusion

There's chance management may look at implementing a brand-new HRD system that uses cutting-edge methods. When a firm is developing or implementing HR policies and procedures, unions and employees may be engaged. The organization can allow each employee to use and develop their skills and expertise to the best extent possible. As a whole, the BSNL executive' association declared in 2015 that the most critical problem for HRM experts in the BSNL sector is to implement contemporary global HR standards in the firm. The majority of BSNL's HR staff lacks the necessary expertise and study output to guide practice. While HR departments struggle to build more objective and efficient procedures in critical HR operations, they must also innovate to deal with industry worries and expectations to thrive in the competitive market. Assam Circle's telecom sector has grown steadily over the past few years. As a consequence of the industry's free-for-all competition, it has not only seen fast expansion but also contributed much to the maximizing of customer advantages everywhere. There has been a steady rise in the number of people using phones in this area of Assam Circle over the years. It's safe to say that human resources management (HRM) is on the rise in both BSNL and nearly every other company. It's a job that requires a lot of effort. As a result, BSNL's HR department must take steps to establish sound HR practices before implementing them.

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