# IMPACT ON EMPLOYEE MORALE AND JOB SATISFACTION: A CASE STUDY OF TELECOM INDUSTRY NETWORK OUTSOURCING

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## ABSTRACT

*Most telecom operators building their 2G/3G/4G mobile and Wire-line networks, operate, expand network, acquire customers in large proportion and thereafter outsource the network to third party vendors or managed services partners such as Ericsson, Alcatel Lucent, ZTE, and Huawei and also transfer the manpower. The transition of resources from the parent company to the third party vendor in the case of a company already handling its operation and maintenance of its telecom network has a significant impact on the morale and job satisfaction of its employees who are transferred out. In the case of a start up the outsourcing of its network operations from the beginning has a different implication. This case study is based on 10,000 resources moving from an established integrated telecom operator with employees scattered across the length and breadth of India and managing one of the largest integrated telecommunication networks in the world. Outsourcing severely impacted morale, motivation and job satisfaction which eventually impacts productivity and performance which is discussed in this case study.*

**Keywords:** Telecom Operator, Outsourcing, Network, Operations and Maintenance, Job Satisfaction, Morale, Motivation, Sense of Belonging, Vendor, Third Party Contractor, Managed Services.

## INTRODUCTION

India's telecommunication network is the second largest in the world in terms of telephone users (both fixed and mobile phone) with 1171.80 million subscribers as on 31 Oct 2020. It has one of the lowest call tariffs in the world enabled by mega telecom operators and hyper-competition among them. As on 31 Oct 2020, India has the world's second-largest Internet user-base with 734.82 million broadband internet subscribers in the country. Major sectors of the Indian telecommunication industry are telephone; internet and television broadcast industry in the country which is in the process of transforming into next generation networks. With a large workforce engaged in the industry with a sizeable number of them deployed in the network Operations and maintenance, Manufacturing, service operations, handset sales etc. there is a need to have a sturdy pipeline of skilled and developed talent to address the needs of the industry. Owing to network outsourcing, fragmented roles, job content, role definition and work environment is having an adverse impact on employee morale, motivation and job satisfaction which is highlighted in the case study.

Indian telecom industry underwent high paced market liberalisation and growth since the 1990s and now has become the world's most competitive and one of the fastest growing telecom markets. The Industry has grown over twenty times in just ten years, from under 37 million subscribers in the year 2001 to over 846 million subscribers in the year 2011, and 1151.8 billion at the end of December 2019.As of Oct 2020, India has the world's second-largest mobile phone user base with over 115.18 cr. users.

Mobile telephone industry generated Rs 145 billion per annum for the public exchequer through license fees, spectrum fees, import duties, taxes, etc. The 3G spectrum auction

combined with the bid values for Broadband Wireless Access licenses yielded the government more than Rs. 1,00,000 crore in 2010, amounting to approximately 1 per cent of GDP.73 The government has collected Rs. 25,331 crore as Universal Subscriber Levy between 2002 and 2009. In conclusion, the teledensity does impact GDP, employment and government revenue (TRAI, 2012).

As Telco's reconfigured their networks and offer a range of services with fat tails, they will need to develop strong partnership management capabilities. Currently, they have complete control over their value chains, and only a few parts of the value chain have been outsourced. But in the future, they will be operating diverse sets of networks with very different business models. This will reduce operating costs through outsourcing processes and delivery of multiple services to consumers through range of partners. They will need to have flexible approaches that allow them to quickly enter markets with opportunities, and be ready to exit if those opportunities don't materialize (Arthur, 2020).

A Managed service (as defined by Dr. Gerard Macioce) is the practice of transferring day-to-day related management responsibility as a strategic method for improved effective and efficient operations. The person or organization that accepts and provides the managed service is regarded as the service provider. Typically, the Telco service provider remains accountable for the functionality and performance of managed service and does not relinquish the overall management responsibility of the organization or system (Runa, 2009).

The case is presented in a manner where the telecom business elements are highlighted in the Indian context; the growth of the industry is shared, explaining the concept of outsourcing to MSPs, The changing business models of the Telco's, challenges faced by employees due to transition, role changes and the need for Government support for regulatory control and compliance to ensure the working population are adequately protected. The perspective is shared from the authors experience as Sr. Vice President and Head HR- who was involved in program managing one of the world's largest outsourcing of Network and manpower to MSPS.

## Case Overview

This case study looks at the impact of migration of employees from Telco's which have outsourced their network to MSP's for cost effectiveness, better network quality, outsourcing non- core operations and let subject matter experts manage the complex telecom network both wireless and wire-line. Consequently, job impact, morale and motivation take a hit, job dissatisfaction are seen as a common phenomenon in the case of network engineers.

Telecom operators around the world are under pressure to improve profit margins, which has sparked an aggressive pursuit of lean business models. Network sharing has taken shape as a way to substantially decrease investments and cost. Sharing of network assets has also sparked innovation by enabling operators to increase rollout speed, provide broader coverage, and introduce new applications at shorter time intervals. While outsourcing and sharing provides significant financial benefits, these deals can be complex and with risk. The pressures on mobile and fixed line operators to optimize their cost structures, while launching new services to drive growth, is leading to revamping and relook at business models. Network outsourcing and sharing indicate aggressive business approaches that transform the relationship between operator and the network.

Managed Services is a fast growing USD 16 billion industry which is attracting telecom equipment vendors who are showing increasing interest to benefit from their existing competence and take on new roles in the value chain, covering activities such as network build, including planning and design, field operations, Network Operation Centre (NOC) operations, application & service development, and billing.

In recent years, operator awareness of Managed Services has increased significantly; Managed Services is now beginning to be a standard element of telecom operator procurement processes (Bharat Exhibitions, 2020).

The telecommunications sector plays an important role in the Indian economy and the regulatory reforms in the telecom sector from 2000 to 2011 can be broadly classified into the following three distinct phases (TRAI, 2012).

1. Phase 1–2000–2003: Telecom sectors were opened up to competition
2. Phase 2–2004–2007: Regulator encouraged competition and also set the stage for future growth
3. Phase 3–2008–2011: More choices were provided to consumers in terms of technology and services. Majority of the investment over the decade has come from the private sector and they perform better in terms of return on average capital employed

Ericsson in stated in their website www.ericsson.com, explains the concept and scope of managed Services as Managed Services offering consists of four segments; Operations, Field maintenance, Operational readiness and Shared solutions. All the service segments are flexible in terms of scope and set up and can be adapted to fit the customer's needs.

The managed services business is growing at about 2-4 per cent year on year. It is also driven by the fact that there is more equipment out there. Even with consolidation, you still have a network to manage in India, as stated by the Ericsson leadership at the Telecom Congress (Economic Times, 2020).

Typically Managed Services includes activities such as designing, building, planning, operating and managing day-to-day operations on behalf of a customer. Nokia defines Managed Services as the delivery and management of professional services under a long duration contract that includes a service level agreement with incentives.

Outsourcing and offshoring affected mainly customer services and other labour-intensive functions. Many telecom and ICT functions are outsourced or offshored these days i.e. shared services, field services, network operation and maintenance, IT services and so on, where the function is moved out. Traditionally, outsourcing and offshoring are aimed mainly to access lower-cost or more flexible workforces or organisations (Schorpf, 2016).

There are a variety of factors that motivate the trend towards HR outsourcing, including a focus on cost saving, and the need to concentrate on core competencies. However, the focus on HR as a value-adding function at the strategic level is seen as a significant driver for outsourcing HR activities (Sriwongwanna, 2009).

The growing challenge of Network Operations and Network Integration services and providing customers with flexible experiences rather than long-term services has changed the way telecom service providers connect their telecom infrastructure planning to service deployment. Telecom network operators have always faced the challenge of matching their technology and infrastructure to related services opportunities in order to generate revenue (Alcatel Lucent, 2020).

The BSNL the public sector operator had rolled out its outsourcing policy early in January 2020, after a large number of employees opted for the Voluntary Retirement Scheme. The new policy allows all telecom circles to outsource maintenance work and provision of landline and broadband connections. Union leaders see these moves as the management's way of testing the waters for its eventual privatisation (The Hindu, 2020).

Operation and Maintenance of Telecom networks is normally classified under the two broad headings as under;

1. Preventive maintenance
2. Corrective Maintenance

The service aims at further improving the network quality, O&M services for passive equipment at telecom sites including towers, shelters, DG sets, power panels, power plants, diesel filling services, battery bank, preventive and corrective maintenance, break down maintenance, OFC Route maintenance, fault rectification etc. The teams performing are equipped with necessary competence and tools to meet high network uptime (GSMA, 2013).

Over the last two decades organisations worldwide have gone through drastic changes in business models to stay competitive. Some of the key drivers for these changes have been the business dynamics, increased competition, impact of socio-economic factors, and emergence of the third world countries, technological changes, and adoption of new business models in tune with the new realities. Companies have been increasingly focusing on their core strength or core line of business while doing away with non-core or support services.
The predominant reasons outlined for an outsourcing decision is given under (Patil, 2014).

1. Savings in Opex
2. Access to skilled resource/core competence
3. Non-Core Service
4. Flexibility in Contract and resource management
5. Management Control
6. Impact on SLAs/QoS

Outsourcing providers are now specialising in a great range of services and, as such, can claim to have a specific level of competency and predictable pricing for a set range of services. Rothery & Robertson (1995), present further outsourcing options that depend on the level of expertise required. These options include full outsourcing, selective outsourcing, transitional outsourcing, and transformational outsourcing.

Outsourcing is the strategic use of outside resources to perform network maintenance activities that are usually handled by internal staff and resources. It is indicated that the outsourcing strategies had a negative impact on the perceived quality of work-life dimensions. Although outsourcing can lead to certain gains for the organization, there are definitely human costs to be considered, and they should be taken in to account as major factors contributing to the outsourcing debate, not just the financial aspects of organizations' decisions (Elmuti etal., 2010). Operational excellence: As customers see connectivity as a low cost, low involvement commodity and a basic need, Telco's are streamlining their processes to cut costs and become leaner which changes the operations landscape significantly. Telco's are exposed to high level of uncertainty and hence are stepping outside of their traditional thinking and becoming more innovative and using outsourcing to focus on the core activities of the business (Delliote, 2020).

A case in example in India: In a fast changing industry ecosystem, heavy investments in network infrastructure can burden balance sheets and limit flexibility. Bharti Airtel example of the lean, agile by an Indian based company which set the trend for outsourcing non- core activities. The company's core competency is branding and identifying customers. In the U.S., telecoms are classified as a high technology industry and Network is their business. Bharti, on the other hand, has little expertise in technology and in response, the management team made a bold move: It outsourced its network installation, maintenance, and service to Ericsson and Nokia Siemens Networks, and chose IBM to build and manage its IT systems. Therefore, it retained only few on permanent roles to oversee MSP arrangements. The company's innovative business model converted fixed costs in capital expenditure to a variable cost based on usage of capacity (HBR, 2020). Through the outsourcing arrangements, the company could dramatically lower its costs while ensuring high quality for customers, since vendors had world-class competencies in their domains.

The vendors for telecom network management were paid only for the capacity utilized, not for the equipment. Its innovative business model converted fixed costs in capital expenditure to a variable cost based on usage of capacity.

It has widely experienced by employees moving to a Managed services partner or outsourced network services partner that while outsourcing might make a business case, however employees experience stress and struggle with work adjustments since the transition impacts roles and career progression.

The migration which results in fresh hiring of network engineers moving from the telecom operator/parent organisation to the managed services partner or vendor rolls resulting in a certain amount of ambiguity, stress and consequently readjustments. In the short term there is drop in engagement levels resulting in impact to productivity and performance.

The main focus of Human resource department in a telecom organisation is to ensure efficiency with effectiveness in a competitive work environment (Deogaonkar, 2016).

The flow that an employee experiences in the new scheme of things is migration-chaos-enforcement of norms-resulting in order- thereafter restoration of productivity and performance. In the process of the flow lack of adjustment by the transitioned employee results in low morale, job dissatisfaction, delayed performance reviews, lack of promotions with little or no reward and recognition.

The parent organisation or telecom operator erstwhile employer now handles the governance framework and the employees are sandwiched between his MSP (Managed services partner/vendor) and the telecom operator. The day-to-day operation and maintenance of the network is complex involving fault – surveillance and performance management and the same is monitored from the network operating centre while service assurance and service delivery managed at the ground level.

Network engineers handle wireless and wire-line operations either from the NOC or the field. Once outsourcing takes place the focus is on reducing cost, enhancing value, reducing time for fixing faults and service delivery with minimum manpower and deriving maximum results.

The governance model makes it tight supervision and lot of time on reviews and reporting which adds to the work load. The outsourcing partner operates on a wafer thin margin and hence the budgets don't provide for liberal employee welfare expenses.

Office spaces (MSP) are very functional and with space constraints make the work environment an added challenge. They are also co-located at various touch points to manage the network and travel around. Work load, long hours at work, transactional nature of the job adds to the stress and satisfaction levels resulting in high burn out.

The outsourcing in the telecom industry has also gone through ups- and downs with job losses since Chinese companies are losing favour such ZTE and Huawei. This has added to the woes of the telecom engineers and having a cascading impact in the overall industry. MSPs such as (Ericsson, 2020), Nokia Siemens, Alcatel Lucent, Cisco and Samsung are all having huge pressures on cost and margins. Original equipment manufacturers involved in O&M operations are having an edge over the others while the overall industry is going through a tough phase over the last 5 years taking a big toll on the network engineers.

Added to industry dynamics, fragmented roles, operating in remote locations away from home, frequent long distance travel for service operations, daily commute to network installations is a huge challenge of sorts. At the NOC, the number of calls handled and tickets raised and closed and handling customer complaints (3 shift working) is a monotonous activity not many engineers like to perform resulting in high burnout and attrition.

With the increasing rise in supply of fresh engineers and most of them are placed in rudimentary jobs with low salaries resulting in low morale and motivation. Career progression is slow or near non-existing in the early years and employee churn at 10-15% pa

is very common in the outsourcing industry. Cheap labour and large supply makes the situation worse for a large pool of engineers coming in to the industry periodically.

Early years employees willing to forgo job enrichment, job satisfaction and having the ability to take the shock and stress survive and make it big in the years to come. Clear indication that only when the employee has personal, financial constraints and lack of alternate job opportunities he accepts the situation and tries to overcome the challenges associated with the role.

Frequent role changes of employees and their respective manager's owing to business requirements leaves very little scope for establishing enduring working relationships. This is one big reason for employee attrition and job dissatisfaction in the MSPs. Added to this phenomenon telecom operators are also changing the outsourcing contracts once in a while which further renders many job less.

The concern areas of network engineers employed in operations and maintenance roles and working with MSPs are in the areas of emotional connect with the customers and the business outcomes, relationships with peers and managers, role definition and job wholesomeness, compensation and career progression. Working conditions, long hours of work, stress and job security.

Significant trends established in the telecom outsourcing industry is that MSPs are further outsourcing manpower operations to third party contractors and majority of the operations are managed by third party contract engineers and operators. The contractor is on paper and the MSPs manage the manpower and the attendance of the third party purely for cost avoidance since they are operating on a thin wafer. The provision of The Contract Labour (Abolition and Prevention) Act, 1970 is blatantly violated with no remedy of permanent employment for the Engineers involved in Operations and Maintenance. There are many unions now coming up in this sector to protect the labour since the jobs are not seasonal and temporary in nature and the Principal employer needs to hire them on their roles, which is a distinct possibility at the moment.

Office staff and Engineers working in NOC etc. also face a similar situation. While the Telecom operator has outsourced the network to MSPs, the vendor has very little investment on the ground for people development. They predominantly operate as a Payroll management company and aggregator. The engineers are at their mercy. There is hardly any engagement, training and development, reward and recognition and most importantly growth and progression and hence the morale and job satisfaction of the MSP employees are low and remain in employment since there are no alternate jobs in the market, with the industry going through a very difficult phase. Consequently, attrition is much lower than in the past owing to no job opportunities and the MSP employees remain in employment with low engagement levels. The salary progression is at an average 5-6% and does not meet the inflation levels but the employees are helpless and remain choked in the system.

Considering the business viability for a Telco to outsource its network assets for operation and maintenance and focus on core deliverables it makes many network roles redundant within the organisation of the Telecom service provider. The key roles that are retained by the Telco service provider are Network planning, architecture and engineering, Network roll out, project and program management and the majority of the roles are passed on to the outsourcing partner.

## CONCLUSION

Privatisation of the telecom industry opened up the doors for the latest technologies to enter India and provide affordable and timely service at low cost. The quality of service was enhanced but due to extreme competition the pricing war, the cost of equipment, spectrum

charges made it unviable for many operators. Revenue per customer is still not as high as one expects. Also 90% of the customers are prepaid customers leading to low ARPU (average revenue per customer) while the acquisition cost of customers is pretty high. In view of the above, the margins are low and it is but natural the Telecom operators need to reduce cost while Capex is mounting resulting in huge investments and consequent losses. Outsourcing of network operation and maintenance ensures transition of network engineers, salary cost and other overheads while focussing on the core functions. Existing telecom operators on reaching size and scale and on adequate network expansion, acquisition of customers, they hire sizeable workforce who are transitioned to the MSP resulting in multiple changes in work profile, location, HR policies and practices.

Psychological adjustments, willingness to adapt, absorb stress, keep career aspirations under reality check only makes the young and experienced engineers remain employed and perform according to expectations. Ability of the Engineers to find time and motivate oneself for further learning and certification will help them employable in a very volatile, uncertain, complex and ambiguous world. Cost pressures and sizeable operating roles makes outsourcing a necessary evil and therefore it is prudent to hire more of Diploma (trained resources) than hire engineers to do O&M roles which results in low morale, motivation, job dissatisfaction and employee exits.

The telecommunications workforce is under enormous pressure. Despite four decades of rising skills, wage growth has been slow for the large majority of the workforce, consistently lagging well behind average productivity growth in the economy as a whole. The downward pressure on wages stems from a variety of sources, but two are central. The first is corporate "*fissuring*," where firms shed workers and contract out work to what are sometimes multiple layers of subcontractors, allowing large firms in the sector to squeeze smaller firms and especially their workers. The second is a long-term decline in unionization in the telecom sector.

The rights of contract workers in India are legally regulated by the Contract Labour (Regulation and Abolition) Act, 1970 ("*CLA*"). The premise of the CLA is to ensure that contract labour is accorded all benefits and protections that regular employees enjoy under Indian law (CLC.gov.in, 2020).

In the above context it is important that a labour statute is enacted to prevent MSPs from further outsourcing for leveraging on costs of managing payroll. This will ensure socio economic status and job security and prevention of exploitation of labour. India with a large work force we need to improve the skill levels and provide job security with a fair wage. Statutory compliance is weak in this sector which needs to improve with the help of government commitment if the cause of labour needs to be addressed. Most of the MSPs are multi- national companies that get away with short term gains leaving the country's large working population with short of gains from employment.

Also if organisations can build a model from the start up stage to engage MSPs for managing the network assets, then the risks associated with manpower can be managed to a large extent rather than hire- build- operate and then outsource the network for O&M. Something, which can be tested in few organisations expanding their network, since the network in our country has matured and there is very little scope to experiment in the years to come.

Government subsidy to MSPs for sourcing capital at relatively low rates, short term funding for working capital management and cash flows for securing employment is important for this industry to survive and strive. The Government of India is planning to offer $550.2 Mn (INR 3,600 Cr) subsidy to private telecom companies through viability gap funding, in a bid to connect gram panchayats via Internet as part of the second phase of

BharatNet. It is an initiative that aims to provide Internet access to people in rural and semi-urban areas across the country (Sukanya, 2017).

Finally, the Indian experience of Telco's outsourcing their respective networks has been by and large successful, the toll it has taken on the network engineers has been substantial which can never be remedied and while the industry is going through a tough phase, outsourcing and employment challenges are also highly exposed in the public domain.

## Key Questions from the Case Study

**$Q_1$**. While outsourcing in the telecom service industry makes a business case, is it possible to remedy the situation of the employees to enhance the morale and job satisfaction?

**$Q_2$.** Is it feasible to prevent violation of labour laws by MSPs and third party vendors by the Government by enforcing the Contract Labour (Abolition and Regulation) Act 1970, without impacting the industry?

**$Q_3$.** Can we create a cadre of under- graduates i.e., Diploma holders exclusively for this industry with lower benchmarks in academics to handle O&M activities and remain job satisfied?

**$Q_4$**. How can human resources development, Outsourcing and O&M go hand in hand?

**$Q_5$**. Government regulatory and legislative action can improve the plight of network engineers, Please discuss the viable approaches which could promote industry and employment?

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