



The crisis of Pakistan railways: unveiling the nexus of competence and corruption

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Abstract:

Pakistan Railways is facing a crisis marked by a need for more operational locomotives essential for its functioning. This study endeavours to uncover the root causes of lack of success and explore avenues for enhancing operational efficiency and effectiveness. The study draws out some parameters and resolutions about competence and corruption issues in Pakistan railways. It examines and provides possibilities for improving performance and increasing capacity by highlighting different problem areas. The well-grounded qualitative approach was used to design the research methodology. Analysis of in-depth face-to-face interviews with senior officials helped identify the significant factors of competence and corruption contributing to the decline of Pakistan railways. The study delineates key parameters and proposes resolutions to address these challenges, aiming to enhance the organisation's performance and capacity by identifying and addressing critical problem areas. The research analysis identifies the principal factors contributing to the Pakistan Railway's decline in competence and corruption. NVivo 14 was utilised to discover richer insights from the interviews, enhancing the rigour and reliability of the findings. The study offers several recommendations to concerned authorities to elevate the competence levels within Pakistan railways and steer them towards recovery and efficiency.

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1. Introduction

The goal of economic development and economic cohesion in the world economy can only be attained by developing an efficient and competent transport system. When the transport system of any country is not working to the required level of efficiency, it results in a waste of resources and time, a polluted environment and accidents. Such irregularities create inefficiencies and cost the economy a significant percentage of GDP per annum, and investment in transport can save this cost. Over the past decade, Pakistan has experienced a significant decline in its economic performance, with GDP growth plummeting from 6.2% to 3.3%. Concurrently, the condition of Pakistan Railways (PR) has deteriorated, reflecting broader infrastructural challenges facing the nation (Tanveer et al., 2020).

Regarding different modes of transport, railways are more economical, environmentally friendly and safe. Railways have a distinct place in passenger transportation as an alternative and potential means of transportation (Solomatina, 2022). For all these reasons, railways' role is vital in a country's social and economic mobility (Durrani, 2012). Commissioner of Sindh Sir Henry Edward Fere initiated a plan for railways in sub-continental Pakistan in 1858. A survey at that time suggested constructing a railway line from Karachi City to Kotri, from the Indus /Chenab up to Multan and another railway to Lahore. The first railway line for public transportation was opened on May 13, 1861, and spread over 105 miles. It linked Karachi City and Kotri. Later, the line from Kemari to Kotri was extended in 1897 (Qamar & Saeed, 2016).

After launching the first railway line from Karachi to Kotri, railways expanded in no time in all major areas. The importance of such expansion was economic and strategic. Pakistan Railways is the only Railway service provider whether it is freight, passenger, urban, regional or inter-city service. Pakistan Railways depends on the Government of Pakistan for funding and finances, whether renewal or new investments. The Pakistan Railway, among the other state-occupied organizations, has been a less standard performer institution and loss-making sector in the last decades. In 2018, this sector had an immense deficit of PKR 26.994 billion (Bhutto, 2021).

Pakistan Railway is a government-owned organization seeking bulk transportation services for passengers and Freight. It is managed by engineering departments that maintain and develop its physical infrastructure and a commercial and transportation cadre recruited through a civil service exam to run its operational and commercial activities. Its goals are to provide a competitive, safe, reliable, market-oriented, efficient, and environment-friendly mode of transport (Abid & Khan, 2013).

Pakistan Railways is a department of the federal Government headed by the Ministry of Railways. The Secretary for the Ministry of Railways also becomes the ex-officio Chairman of the Railway Board. General Managers are the heads of three separate functional units of Pakistan Railways: the Operations Unit, the Manufacturing & Services Unit, and the Development Unit; they are answerable to the Secretary/Chairman of Railways for the performance of their units. The operations unit looks after all railway operations and other relevant functions. Three additional general managers assist the general manager of operations, each representing a separate business unit - infrastructure, traffic, and mechanical. There is also a specialized head of each department. Manufacturing and Service Units supervise the Concrete Sleeper Factories, Locomotive and Carriage Factories.

The Development Unit is the administrative head of all institutes of railways like schools, hospitals, railways academy Walton, information technology department and all other execution plans and projects. Peshawar, Rawalpindi, Lahore, Multan, Sukkur, Karachi, and Quetta are seven regional Operating Divisions of Pakistan Railways. Then, there is an Administrative Division at Headquarters and a workshop at Mughalpura. These divisions are directly supervised by divisional superintendents who report to the General Manager of Operations. The Divisional Superintendents are assisted by assistant officers of different railway departments, including Engineering, Civil, Mechanical, Electrical, Signal and Telecommunications, Medical, Transportation and Commercial, Accounts and Railway Police (Tahir, 2013).

Pakistan Railways plays an indispensable role in fostering connectivity and accessibility across the nation's diverse landscapes, particularly in remote regions where alternative modes of transportation are limited. Despite its pivotal importance, PR has faced many challenges threatening its operational efficiency and financial sustainability (Naurin & Gul, 2023; Jaleel et al., 2023). The railway is a service-providing industry and has a potential role in the country's economic development by providing transport infrastructure and services. The railway has a dual obligation. By law, it is binding to provide public service. On the other hand, it has to profit from its investment as a commercial entity. Research in the railway sector aims to use advanced technologies and organizational practices in this progressive sector to make it more responsive to customer and market needs.

This study aims to identify problems of Pakistan Railways that are explicitly related to competence and corruption by analysing technical and administrative issues. The main objectives of the current study are: a) To identify the main hurdles Pakistan Railways faces in delivering its services efficiently and competently. b) To detect the factors responsible for competence issues and provide solutions. and c) To highlight the technical and administrative areas where change is required to improve staff recruitment and training at different levels and upgrade the system.

2. Literature review

2.1. Rail transport

Rail transport comprises all land passenger and freight transport on single or double rail tracks. The railways have been used by governments to pursue policies in areas other than transport, to support domestic industry, and to create jobs. Therefore, railways should be treated as more than one coherent entity. In practice, the railways offer a variety of services. The variety of services is critical to revitalizing the railways' role, enabling them to compete effectively. In this way, it can adapt to market conditions and ultimately come closer to meeting the goal of profitability (Irfan et al., 2012).

2.2. Current status of Pakistan Railways

Pakistan's railways are vital to the country's communication, infrastructure, survival of goods and services transport. Understanding their significance for economic growth is necessary because this sector is the second-largest organization after the armed forces (Aslam, 2023). PR is a national state transport service. It is directly under the administrative control of the Railway

Ministry, Federal Government of Pakistan and has its head office in Lahore. The PR is the largest means of transportation in Pakistan.

The PR has been preyed to political interference, non-commercial objectives, ambiguity of course of direction, and a depressed organizational culture due to the persistent declining situation. All these are causes of this chronicle failure. Pakistan Railways has relied on loans from the State Bank of Pakistan for several years to run its day-to-day functions. The role of Pakistan Railways has been of vital importance in the socio-economic development of Pakistan for the last 150 years. It employs many populations directly or indirectly. Its contribution to the country's GDP is of enormous importance. The approximate results show that transportation rate and cumulative economic activity are the most critical drivers of rail transportation demand in Pakistan, both in the short- and long term (Khan & Khan, 2020).

2.3. Issue of competence in Pakistan Railway

Although Pakistan Railways can assemble engines at its factory in Risalpur, it is demanding locomotives to run its operations. This fact highlights the negligence and incompetence of the PR officials. China also runs almost 10,000 locomotives daily. Here arises the question: If China can use its locomotives efficiently, why has Pakistan Railways failed to run these engines successfully in Pakistan? PR faces giant financial losses, dependence on subsidies, unsatisfactory customer services, unmotivated employees, and poorly maintained and outdated assets. The 1973 reforms pioneered these issues and transformed PR from a commercial entity to a bureaucratic organization by handing it over to the Ministry of Pakistan Railways. As a result, PR has always been facing underinvestment and governance issues (Ali et al., 2024).

2.4. Competence

Competence comprises three main elements: knowledge, experience, and judgment (BMBF, 1998). The Office of Rail Regulation's (ORR's) Railway Safety Publication 1 (RSP1) breaks down the components of competence as follows.

2.5. The evidence-based Competence Management System Cycle

Competence management is an important strategic objective for all companies. The Office for Rail Regulation's (ORR) Railway Safety Publication1, Developing and Maintaining Staff Competence2 (RSP1) outlines a competence management cycle that informs the development, design, execution and review of activities within a competence management system (CMS). That is based on different stages.

Stage 1: Set up needs for the Competence Management System (CMS)

- Mark out actions and evaluate danger
- Implementation of standards

Stage 2: Devise the Competence Management System (CMS)

- Build up processes and methods
- Choose how to achieve the standards

- Launch prerequisites for training, development and evaluation
- Retain managers' competencies

Stage 3: Execute the CMS

- Select and employ staff
- Train, develop and assess staff
- Direct actions undertaken

Stage 4: Maintain and develop competence

- Supervise and re-examine staff performance
- Renew the competence of employees
- Handle imperfect performance
- Keep records

Stage 5: Authenticate, audit and review

- Verify and inspect the CMS
- Appraisal and feedback

2.6. Corruption

The World Bank defines corruption as the misuse of power given under trust for private gain. There are two types of corruption: rule corruption and against rule corruption. According to the rule, corruption is when a payment is made to facilitate getting something done, and the receiver of the bribe is required to do it by law. On the other hand, corruption against the law is when a bribe receiver receives a payment to do something that he is prohibited from doing by law (Wang & Rosenau, 2001).

2.7. Corruption in Pakistan Railways

A report published by the Pakistani auditor general declares that Pakistan Railway's current decline is the result of multiple factors, such as misuse of resources, manipulation of accounting figures, lousy management, poor internal structure, and negligence. Although the decrease in PR started in 1970, the actual dent in PR was caused by the import of Chinese locomotives. The locomotives were ordered without prior research and expertise. Bad intentions and a high amount of commission were involved in the import of these locomotives. The rest of the damage was done when fake spare parts were replaced at the time of their replacement to add to their failure and get more financial gains. In short, a whole conspiracy was involved, from their purchase to operational maintenance (Ali et al., 2024).

2.8. Mismanagement in accounts and other departments

All departments have caused losses to Pakistan Railways, from ticket checkers to top-level management, in one way or another. The bribe and improper entries in the book of accounts are common malpractices. The rusted bogies and tracks have been removed from work due to inadequate maintenance services and sold out at a lower-than-market rate. Then, the figures

either need to be recorded or misrepresented. Several corruption scams recorded in the National Accountability Bureau (NAB) involve corruption of millions of rupees like scrap scandal, repair of Chinese engines and handing over Shalimar Railways to a private contractor (Irfan et al., 2012).

3. Theoretical framework

This research is intended to investigate the variables of incompetence and corruption, which are significant factors contributing to the PR crisis.

3.1. Competence

Competence is the ability to fulfil the requirements that a specific designation demands. A competent rail transport operator will have the skills, knowledge and qualifications appropriate for identifying and managing risks and all the activities associated with railway operations (Cheng & Tsai, 2011; Pansuto et al., 2023).

3.1.1. Competence management system

All regulated industries require the introduction of a standard competence management system. A formal competence management system is considered to be the presence of good practices. Whatever the job or role, the human factor is involved at some stage, whether it is maintenance, supervision, inspection, or construction (Hutter, 2001; Smoczyński et al., 2022).

3.1.2. Proper Training system and assessment

The Office of Rail and Regulation obliges training assessment and development to match the required competence level. The training of the new and old staff should be based on their previous level of competence in their skills. The training and development activities should be arranged in a loop of continuous progress in the competence development process (World Bank, 2011). Assessment is an integral part of the training system. Individuals should be assessed on agreed-upon standards. Persons who are not competent enough to perform some activity should only be allowed to do that activity under the supervision or guidance of a competent supervisor once they complete further training and assessment.

3.1.3. Benchmark or set standards

The Rail Safety and Standards Board also incorporates benchmarking into the competence management system (*Rail Safety and Standards Board, 2012*). It relies on external standards and adeptness to benchmark for assessment. Benchmarking is done with high-performing railways, with characteristics, size, and operating conditions to make it realistic and valuable. The whole process aims to identify which practices of the benchmark lead to high competence and implement them in the subject railways to achieve the same.

3.1.4. Competitive attitude

Competition, infrastructure, and service capacity cannot be saved and stored. Any mode of transportation, including railways, leads to the need for service design, marketing strategies,

and pricing policies. So, unused capacity is lost in unused train paths and trains with partial loads (highlighting incompetence). Better transport and infrastructure productivity are critical for competent commercial performance (Jarocka & Ryciuk, 2016; Skorobogatova & Kuzmina-Merlino, 2017).

3.1.5. Adequate utilization of resources

In the given transport system, railways are positively looked upon by the public and governments worldwide. Railways have positive physical and environmental implications. Their tremendous mobility, improved use of land, and development in urban centers are the benefits that always draw the attention of the Government (a highly engaged stakeholder). The efficient performance of railways depends on the high utilization of assets (infrastructure and rolling stock). Each kilometer of the track must be used at the maximum possible level with high fixed maintenance and depreciation costs of these assets. High utilization of tracks for freight movement also contributes to efficient results. Low-capacity utilization leads to inefficiency and incompetence in using the assets to achieve optimum results (Akindipe, 2014; Barbosa, 2020).

3.2. Corruption

World Bank and Transparency International define corruption as exploiting public property for personal benefits. It also comprises the behavior of public service officials, whether civil servants or politicians, who bypass the law to use public belongings for their benefit and interests. Corruption in any of its forms damages performance and efficient resource utilization. There are many contributing factors to corruption, ranging from poorly crafted policies and decisions, misuse and wrong allocation of resources, poor management, and personal interests of officials and politicians to the absence of accountability and transparency (Langseth et al., 1999; Shaikh, 2023).

3.2.1. Lack of accountability/performance evaluation

According to the World Bank report, the benefits of corrupt behavior increase when there is no accountability with discrete power. The World Development Report on Poverty (2000-2001) depicts that if public officials are accountable and responsible to the users, the state can deliver more effectively to all citizens, particularly people experiencing poverty.

3.2.2. Political interventions

Political obstruction in management activities has contributed to the decline of PR. Politicians highly influence organizational decisions. The decision-making process is interrupted at every management level, so no expert and competent opinion gets through (Safdar, 2024).

3.2.3. Weak accounting system

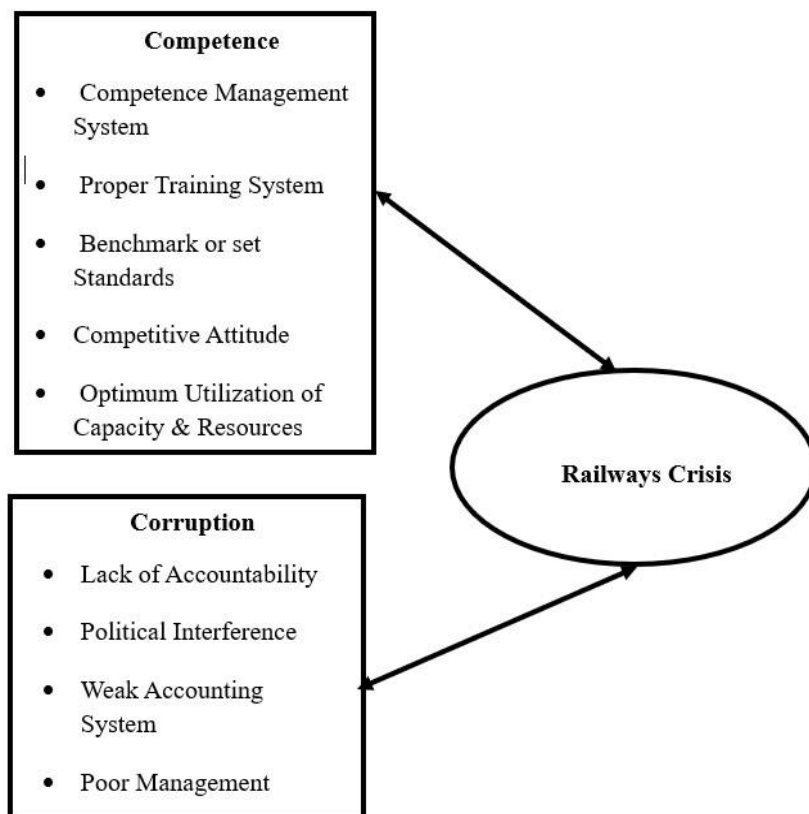
There needs to be coherent or set standards for accounting and financial reporting, especially when discussing public sector government-owned railways. Being an intensive business, railways depend on sound accounting and financial systems. Any discrepancy in financial data or absence of any data in the balance sheet can lead to interpretation and correct decision. It

also makes room for corruption. Whether a railway can take a debt also depends on its financial data. Government decisions for capital investment and loans heavily depend on financial indicators like revenue and cost data. Pakistan Railway, among other organizations, has experienced the critical issue of little investment from consecutive governments that recommended the growth of the road at the charge of the railway (Tahir, 2013).

3.2.4. Poor management

Due to poor management, Pakistan Railways has faced different financial irregularities. The organization needs to recover the outstanding dues from different government departments. An audit report reveals that the PR administration still needs to recover Rs 310.34 million on the head of maintenance and operational accounts from the Defense Department, WAPDA, and other government departments for the last several years. Corruption in all its forms, from the top of the hierarchy to the grassroots level, bad governance, poor management, weak internal structure, and negligence have cost Pakistan Railways tremendous loss (Ali et al., 2024).

Figure 1: Conceptual framework of Pakistan Railways crisis: competence or corruption issue



4. Research methodology

4.1. Data and tools

The critical questions concerning research, like the purpose of the study, time horizon, sampling technique, sample size, unit of analysis and data collection tools, are dealt with in the research design (Sekaran & Bougie, 2016). An in-depth study was required to tap into the issues of Pakistan Railways, so a qualitative research method was adopted. This study aims to

get a detailed view of the crisis of Pakistan Railways by probing into the different aspects of the problem of competence and corruption. Exploratory research has been chosen to address Pakistan Railways' locomotive crisis. This study requires in-depth analysis to obtain information regarding competence and corruption issues at Pakistan Railways. Therefore, in-depth face-to-face interviews are employed to satisfy the research. This survey collected qualitative data collected from senior officials of Pakistan railways departments. In this study, the population consists of all the officials from the Pakistan Railways Department who are involved in policymaking and policy implementation in terms of management, development and budget-making at different designations. Fifteen interviews were conducted with officers of the Railways departments to tap the required data and information. Purposive sampling was used as the study required in-depth information from the respondents.

For data collection, an interview guide was developed based on competence and corruption issues and the policies and plans of Pakistan railways. Besides face-to-face interviews, data and reports Pakistan Railways officials provide are also called analysis and inference drawing. As data is collected from a once-selected sample at one point, it is cross-sectional research (Gull et al., 2023). The next step in the process was transcribing the interviews and identifying the themes for analysis (Hassan et al., 2022). NVivo 14 was used to analyze qualitative data. The software was quite helpful in analysis by comparing different themes that emerged through interview analysis (Sultana et al., 2020).

The relationships between themes, supported by coding in interviews, are depicted in a conceptual model generated from NVivo. In this model, parent nodes represent central themes, accumulating associated concepts. On the other hand, child nodes are linked to parent nodes, illustrating their relationship to the overarching themes. This approach helps to visually represent the interconnectedness of various concepts and themes derived from the interview data, providing a structured understanding of the research findings.

4.2. Analysis technique

Different analysis techniques of NVivo 14 (see Figure 2 in annexure) have been used to see trends and patterns in the data collected through interviews, such as word tree maps, cluster analysis by word similarity, and nodes compared by the number of items coded, but this is not the same as a systematic review conducted from a Bibliometric study, as per the prior study of Gull et al., (2022). A word tree map of reference nodes depicts the extent of references for one variable. The figure 3 (in the annexure) replicates the results of the word tree cloud by showing that the system (competence, accounting, management) is the most significant cause of the current crisis of PR. Training, the inevitable part of the competence management system, is the second variable, with a larger box indicating the second-highest number of references. Both the figures show the word corruption, but it has a significantly smaller number of references than words related to competence.

The word tree map represents the pattern of a talk by respondents where the system of PR is the central word. The words on the right and left of this show their association with the central word system as presented by the respondents. This central word system represents different systems working in PR, like accounting and financial systems, training systems, and management systems. A critical analysis of the figure helps interpret the overall conventional and archaic PR system. Word corruption can also be associated with the system because of a

lack of audit mechanism, absence of professional reporting and weak accounting system. Corruption is partially and less responsible for the crisis than other competence-related issues, although some higher-level scams are present in the recent history of PR. Immediate financial investment is required to improve the system. It should be dealt with by a competitive attitude. The following part is a detailed analysis of each variable based on the informants' responses to the questions.

5. Analysis and discussion

5.1. Qualitative analysis

5.1.1. Hurdles faced by PR in performance delivery

Most respondents thought the scarcity of locomotives was a big hurdle requiring PR to restrict its operations. In this regard, freight service needs to be more effectively addressed due to the lack of locomotives, while the survival of railways throughout the world depends on freight services. The focus should be on freight service to be profitable, but being a public service entity, it is the passenger service. Most respondents expressed that establishing the National Logistic Cell in 1977 had severely damaged the freight service of PR as the focus shifted to the road sector. One of the respondents commented that in India, freight movement between provinces is allowed only through Indian Railways, while the Pakistan government has no policy in this regard. The worst scenario is that we still need to get a transport policy. Employees in responsible management positions are promoted solely based on seniority without any insight into their ability and competence to match the position. Interviewee "N" revealed this in this way, *"PR is an extensive system with thousands of Km tracks. The system is as big as Pakistan. To deal with such a vast system, it needs the right man for the right job, which it does not have"*.

Another central theme that emerged in response to this question was the organization's financial crisis. The respondents revealed that the organization is facing a financial crisis. It has more expenses and less revenue. Respondent "K" conveyed his concern, saying, *"Whenever its unsustainable financial condition got worse, it simply got a loan and continued accumulating debt."* Proper allocation and use of funds are other important issues.

5.1.2. Competence management system

In response to the question about the existence of a Competence Management System in the PR, most of the informants denied the presence of any CMS in an absolute sense. Most respondents said that some training is being imparted at Pakistan Railway Academy Walton, but that is not up to the mark and is satisfactory. Respondent "E" said, *"Competence Management means a system of training and career progression that inculcates professionalism and higher standards among the employees or specifies clear goals to be pursued. In that case, it is not structurally provided in the PR on modern lines. However, there is an archaic training system where officers and officials are trained in procedures and a basic technical understanding of the organization. This system was quite good till partition and a couple of decades afterwards. However, with time, the railway industry has been modernized by leaps and bounds, but PR is still stuck in the old-time frame, which is a serious cause of concern and a major reason for its abysmal decline"*.

5.1.3. Utilization of full infrastructure, freight and passenger capacity

All the respondents answered no to the question of full capacity utilization. The term generally used is the line capacity whereby a system can operate a maximum number of trains in the given time frame. Passenger services are working at a better capacity, although in fewer numbers than in the past. However, the freight service could be utilized more due to the need for more locomotives. Respondent "M" revealed, *"Freight is the main source of earnings that subsidizes passenger service as well, but unfortunately, it is least operative for want of locomotives and to give the road sector a big share. NLC controls freight movement. It has destroyed the railway monopoly. Right now, PR can run 45 freight wagons for coal movement, but it is not being let happen"*.

5.1.4. Integration of hardware, software and human factor

The respondent "E" of the research share: *"Originally, there was a well-balanced, beautifully intertwined and efficient combination of software and hardware in Pakistan Railways. However, that originality was meant for almost a century past. PR is lagging far behind in weaving the right hardware-software combination for modern times. For example, it has imported modern signal systems from the West but lacks the skills and rules to handle the operations and ensure safety measures once installed"*.

The respondent "E" of the study elaborated further: *"These systems are designed in a fail-safe mode. Usually, the system has good integrity and is functioning well. However, the human factors play an important role. If more than one human commits a mistake simultaneously, then there is a likelihood of an accident. The railways rules have been framed according to the hardware specifications. If there is a technological change, fresh working instructions are incorporated. In this sense, they complement each other at all levels. They are working well to the extent that the system is working but not at an optimal level. We need to upgrade it to meet the international standards"*.

5.1.5. Training, development and assessment plans

Most of the informants of the study thought an old training system existed, but we must upgrade it and update the course. An elaborate training system regarding the existing system is in place at PRA, Walton. However, this system is antiquated and conventional. The training structure does not instil in the employees the skill and confidence to cope with the challenges of modern technology and the contemporary workplace environment. Respondent "N" expressed, *"Till now, only officers have been sent for training in foreign countries. The technical staff is also going to China for training for the first time. We must still take it down to lower staff and modernize it"*.

5.1.6. Requirement-based training and strategies

Respondent "E" said, *"Training strategies are designed according to a defined set of requirements of a conventional railway. Unfortunately, this system cannot create the skills needed to transform railways"*. It is based on requirements, as training is related to the job. That means there is a separate training course for every position. We need to update it to match recent trends and new technology.

5.1.7. Element of corruption

In answering the question of corruption, the majority of the respondents viewed corruption as a minor issue compared to competence. As respondent "D" expressed, *"It is tough to measure it subjectively, but I feel it would not be beyond 10% of the total damage caused to railways"*. Incompetence and vested interests are the primary causes of damage. Corruption has caused damage to the organization, but actual damage is caused by bad governance, lack of will and lack of required competence. However, the question is, why is the system not competent enough to detect and deal with such issues? Interviewee "M" said, *"70 % of the damage is caused by technical wing either by incompetence or corruption"*.

The interviewee "B" of the study commented, *"integrity is a vital component of leadership. The loss due to lack of Integrity is not measured only in money loss. It deprives the organization of the mettle and character required to achieve higher-level success. In PR, lack of Integrity has caused havoc. PR's vital interests have been compromised for minimal personal benefits, resulting in its failure and downfall"*. As far as operational safety is concerned, negligence is not an issue. However, in policymaking and managerial decisions, negligence is a cause of damage to some extent.

5.1.8. Management and accounting system.

In answering the question about management and accounting systems, all the respondents pointed out flaws and suggested improving the system. Respondent "R" said, *"It is a bureaucratic system with all the flaws of typical bureaucracy. Mostly, the accounting system is based on guesswork. We need to develop it precisely on a commercial basis. PR lacks a proper management system and professional reporting and audit mechanism"*. Its accounting and management systems are bureaucratic, like a typical government department. These are rigid and must be revised to reflect the organization's different activities precisely. There are several areas where accounting is just guesswork, e.g., the cost of trains and the fuel consumption of different mail and express trains. It does not mean to say that no accounting system exists in these areas. Instead, the system could be more precise.

The informant "F" said, *"Accounting and audit systems are connected, so no meaningful audit is done to detect the corruption. If there is no check, people will become habitual in doing it. The current accounting system badly deviates from standards. Bad intentions are involved in it"*. The central theme that popped out was the development of the accounting and financial system on a corporate basis. The organization should be treated as a commercial entity in addition to public service delivery.

5.1.9. Benchmark

Most respondents asserted that there are no standards. Interviewee "D" said, *"Either it is a whimsical budget target or the good deeds of yore that we want to achieve now"*. Respondent "E" said, *"The slogan is speed, service and safety that PR aims to follow. Unofficially, PR tends to compare itself with Indian Railways for benchmarking"*. Although there is yet to be a clear set benchmark, PR is working closely with China to improve the organization's current status. 14 Chinese visited Pakistan to link Gawadar to Karachi, Pindi to Peshawar, and Karachi to Pindi. Cooperation is also needed to improve speed and upgrade the system.

5.1.10. Role of the government

All respondents thought the Government needed to play its due role in advancing and reviving PR over the years. The Government is responsible for providing basic infrastructure for the entire PR network. Respondent "H" expressed, *"The demography of Pakistan has changed enormously since partition. However, the Government has made no effort to develop railway infrastructure to cater to the needs of the emerging towns and places. The network for operational purposes has reduced greatly in recent years."*

5.1.11. Suggested steps for improvement

The central theme that emerged in response to the suggestion for improvement was holistic change with a competitive attitude in all areas and departments. Respondent "M" said, *"To serve the purpose and achieve this overhaul's target, a competent workforce is required"*. All respondents suggested multiple steps, from the policy framework and rail-road traffic division to the organization's workplace culture and motivational factors. Respondent "E" further added, *"It needs a holistic change. It is improbable that this change is brought about from within the organization. The change has to be imported and introduced at least once, and then it might be replicated and sustained"*.

5.2. Competence issues

5.2.1. Competence management system

There is no competence management system in the PR that exists in the true sense, and that is evident in every step of the PR management and operations. Due to the absence of CMS, PR faces maintenance, supervision, inspection, obsolete communication and signalling systems, lack of training, and technological limitations. Those contradict the competence requirement Manzoor et al., (2019) described.

5.2.2. Shortage of locomotives and underutilization of capacity

Interviews with officials at PR headquarters revealed that out of 409, only 158 are operative. Locomotives are the core assets of Pakistan Railways, as it cannot function without them. It was notified that although the organization owns 409 locomotives, only 158 are operational. Most are used for passenger service, leaving freight service little or unutilized. The availability of locomotives is a significant hindrance in implementing the freight business plan and expanding the passenger services for the people. This finding aligns with (Beck, 2013) that low-capacity utilization leads to inefficiency.

5.2.3. Insufficient facilities

The facilities available on the train and at the railway stations across Pakistan could be made better and are by no means matching the required standards currently. Proper cleanliness and basic amenities like hygienic environment, clean drinking water, clean and comfortable waiting rooms, and a train power supply do not match the required standards. Passengers often have to travel without such basic facilities. Din (2013) suggested that success in public transport depends on quality service.

5.2.4. Inadequate maintenance of core assets

The design life of railway bridges and tunnels was 100 years. However, 86% of Pakistan's 13,871 railways, bridges, and tunnels have expired and must be rebuilt. Such projects are not being undertaken due to a lack of finances. It aligns with Beck's (2013) findings that maintaining vital assets is crucial for PR performance improvement.

5.2.5. Technological limitations in spare parts manufacturing

Pakistan Railways relies on manufacturers from other countries to produce essential spare parts. This dependence is due to a lack of modern technology, an unskilled workforce, research and training, and a lack of interest in competence-building measures. The inappropriate facilities do not allow PR to produce quality spare parts. The above findings do not relate to the *Rail Safety and Standards Board (2012)*, which includes technical skill as an integral part of a competence management system.

5.2.6. Outdated telecommunication and signalling system

The whole telecommunication and signalling infrastructure have become obsolete. It requires immediate attention and investment for repair and replacement. The investment for this purpose is so massive that it is possible with the severe interest of high-ups and the Government. This finding is endorsed by the research of Sriraman and Roy (2009), which highlights the poor telecommunication system as one of the hurdles in the performance of Indian Railways. The state can implement various important measures to encourage the development of synergies between communities and local governments (Kanbur & Lustig, 2001).

5.2.7. Financial dynamics

Modern governance revolves around sound financial management. When we look at the data from 2002-03, it becomes clear that the PR deficit is growing yearly. 2002-03, the deficit was Rs. 6 billion, which rose to Rs 13 billion in 2007-08. Afterwards, there was a constant upward trend in the deficit, and in 2008-09, it was Rs. 18 billion. The loss reached a colossal Rs 30 billion in 2012-13. For the financial year 2013-14, the loss is estimated to be around 33 billion. However, PR is expected to bring it down to 29.3 billion due to strict financial discipline and enhanced revenue generation. PR has incurred a stunning loss of above Rs55 billion during the fiscal year 2022-23.

5.2.8. Training and evaluation of officers

An employee enters into service in a particular grade. Officers enter service in grade 17 and go up the seniority ladder through promotions to grade 22. Whether they manage to go all the way is determined by several factors. The first factor is whether an officer has completed the minimum years of service, and the second is whether he has acquired several positive evaluations in his annual confidential reports. Therefore, there are two determinants: age and evaluation. Firstly, age should not be a determinant. Being older does not make one more or less competent. His responsibilities are considerable when an officer gets his first posting in grade 17. However, his knowledge of how to tackle them is practically nothing. It is contrary to the *Rail Safety and Standards Board (2012)*.

5.2.9. Benchmark of PR

Pakistan Railway has to benchmark comparison or achieve the set standards internationally. Recently, Pakistan Railways introduced a massive benchmarking exercise based on a broad consultative process of internal stakeholders and developed KPIs for different units. Nevertheless, this is just the beginning. Otherwise, PR only struggles to achieve budgetary targets. This is directly opposite to the World Bank report (2011) and RSSB guide (2012), which suggest benchmarking as an important component in achieving competence.

5.3. Corruption issue

5.3.1. Accounting system and access to accurate data

Pakistan Railway must compile data, figures and information and store them in a central database. Although it has an information technology department, it has yet to enlarge its scope to the extent that it can be used as a resource for research and introduce standard practices that are common elsewhere. Its accounting and financial departments mostly need more professionalism. Most of the work is done through guesswork. It provides many loopholes for corruption and malpractices without leaving any mark for detection. Beck (2013) and Din (2013) have the same opinion.

5.3.2. Political obstruction

The cause of the demise of PR is also connected to the increasing interference of the political leadership in PR management and operations. When it comes to decision-making, politicians are involved from top to bottom in PR management. The inexperienced political leadership adds to the difficulty by making incompetent and inexpert decisions. The finding is aligned to the (Khan et al., 2020).

5.3.3. Bad governance and mismanagement

For the last two and half decades, the post of chairman railways has been occupied by the officers of the Secretariat Group, which has badly affected the strategic decision-making process. Another critical aspect of governance is performance evaluation. In PR, there has never been an attempt to develop an objective framework to evaluate the officers' performance. Identifying the performers and non-performers took time without such an objective system. Concepts like Key Performance Indicators (KPIs) or Benchmarking were outside the official PR jargon. Therefore, it was natural for people of the country not to put enough effort into improving performance, as rewards and punishments followed no performance appraisal system. It is aligned with the finding of Edvardsson (1998) that the PR needs a performance evaluation system.

6. Conclusion

The revitalization of Pakistan Railways is not a task to be taken lightly. It requires a concerted effort from policymakers, industry stakeholders, and the broader public to reimagine PR as a dynamic and resilient transportation network capable of driving economic growth and prosperity. By embracing comprehensive reform measures, Pakistan can unlock the full

potential of its railway infrastructure and position itself as a regional leader in transportation and logistics. PR must become an independent profit-earning enterprise. Achieving this goal requires multiple internal changes, which can only be achieved through committed, devoted, and competent management. Research indicates that underinvestment or financial curbs are significant issues that need immediate remedy. The cure for every segment, whether infrastructure, critical assets like locomotives, rolling stock, or capacity building, requires finances. Incompetency and a lack of interest by high officials in training and developing their employees are yet another major issue. Walton Academy is the primary institution of PR that builds the capacity of staff and officers. It must be upgraded, and a proper budget must be allocated to it.

Though digitization has become the norm, PR still manually operates all its systems. It also needs to adopt computerization; where it has, it has failed to update it. Only a partly implemented ticketing system needs to be revised and revised. The induction of modern management practices like performance-based incentives and promotions and corporate-based accounting is vital for building an organization on modern lines. The research findings show that in PR matters, corruption is not a significant factor in dragging PR down. Contrary to popular opinion, corruption in all its forms and manifestations is not the real cause that inhibits PR's ability to perform. It can coexist with an organization's efficiency. Unfortunately, corruption has undermined the running of the organizations to a severe extent. It has caused the ruining of projects, career planning, morale, and leadership qualities and distortion of ethical foundations.

6.1. Recommendations

The PR infrastructure and its governing laws have endured minimal transformation over seven decades, persisting with a static vision and operational framework. This inflexible stance has rendered the PR inadequate for the demands of the contemporary economic landscape, rendering it noncompetitive and financially unsustainable. Urgent reform is imperative to revitalize the PR and harness its potential to catalyse Pakistan's economic and geopolitical advancement. However, the complexity of this endeavour necessitates a multifaceted approach, as there are no quick fixes to the revitalization of the PR (Aslam, 2023).

There should be a proper balance between passenger and freight services, considering the shortage of locomotives. More locomotives should be allocated to the areas where Freight can be improved. Such a scheme can be a good step in earning revenues. The other core problem of PR is governance or management. The revival of PK is linked with good governance. Good governance is dependent on competent decision-making. To bring in such expertise, the restoration of the Railway Board is essential. The first step to gauge the performance of any organization is to develop the KPI and benchmarking, and KPIs are the measures of the performance of any organization. PR has lately conducted a consultation process to develop KPIs for different operating units. The consultative process includes the opinions of internal stakeholders. PR needs to continue with such practices to improve its CMS further. It will help PR to rationalize its goals and modernize its system.

The PR shall study and rationalize its human resources by carrying out skill improvement and a workload audit of the employees. The PR must strengthen, update, and upgrade its training system to become professionally self-reliant in technical and managerial skills of the employees. In the long run, PR shall provide improved passenger and freight services, which

could effectively respond to the national logistics needs required to maintain steady economic growth and development.

6.2. Limitations and constraints

Pakistan Railways is a giant public sector organization. It is challenging to tap every department and every issue it faces. So, the research would be confined to the variables of competence and corruption. More prior research on Pakistan Railways is needed. Only a few research articles are available; therefore, more information is unavailable needed. However, Pakistan Railways is an organization spread all over the country; all of the interviews were conducted in Lahore, where the headquarters of Pakistan Railways is located, with most of the high officials of the organization.

Expanding upon qualitative research with quantitative analysis (Gull et al., 2023) would strengthen the findings. Incorporating statistical techniques could provide a more robust understanding of the relationships between variables, adding depth to the primary qualitative insights. Additionally, broadening the scope of variables beyond competence and corruption could shed light on other significant factors affecting Pakistan Railways. Infrastructure quality, customer satisfaction, or operational efficiency could provide a more holistic understanding of the organization's challenges and opportunities.

6.3. Implications

Pakistan Railways is experiencing a dilemma due to a deficiency of functional locomotives. This study seeks to identify the core causes of Pakistan Railways' performance and to investigate opportunities for improving operational efficiency and effectiveness. The current research identifies various indicators and resolutions to competency and corruption issues in Pakistan Railways. It investigates and proposes solutions for improving performance and capacity by highlighting several problem areas. The study makes several recommendations to the relevant authorities to improve the competence levels of Pakistan Railways and steer them towards recovery and efficiency. Hence, this approach could validate the qualitative findings and provide a more comprehensive view of Pakistan Railways' issues. This diversified approach might uncover nuanced insights and offer a more comprehensive framework for addressing these issues.

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Figure 2: Analysis from NVivo 14

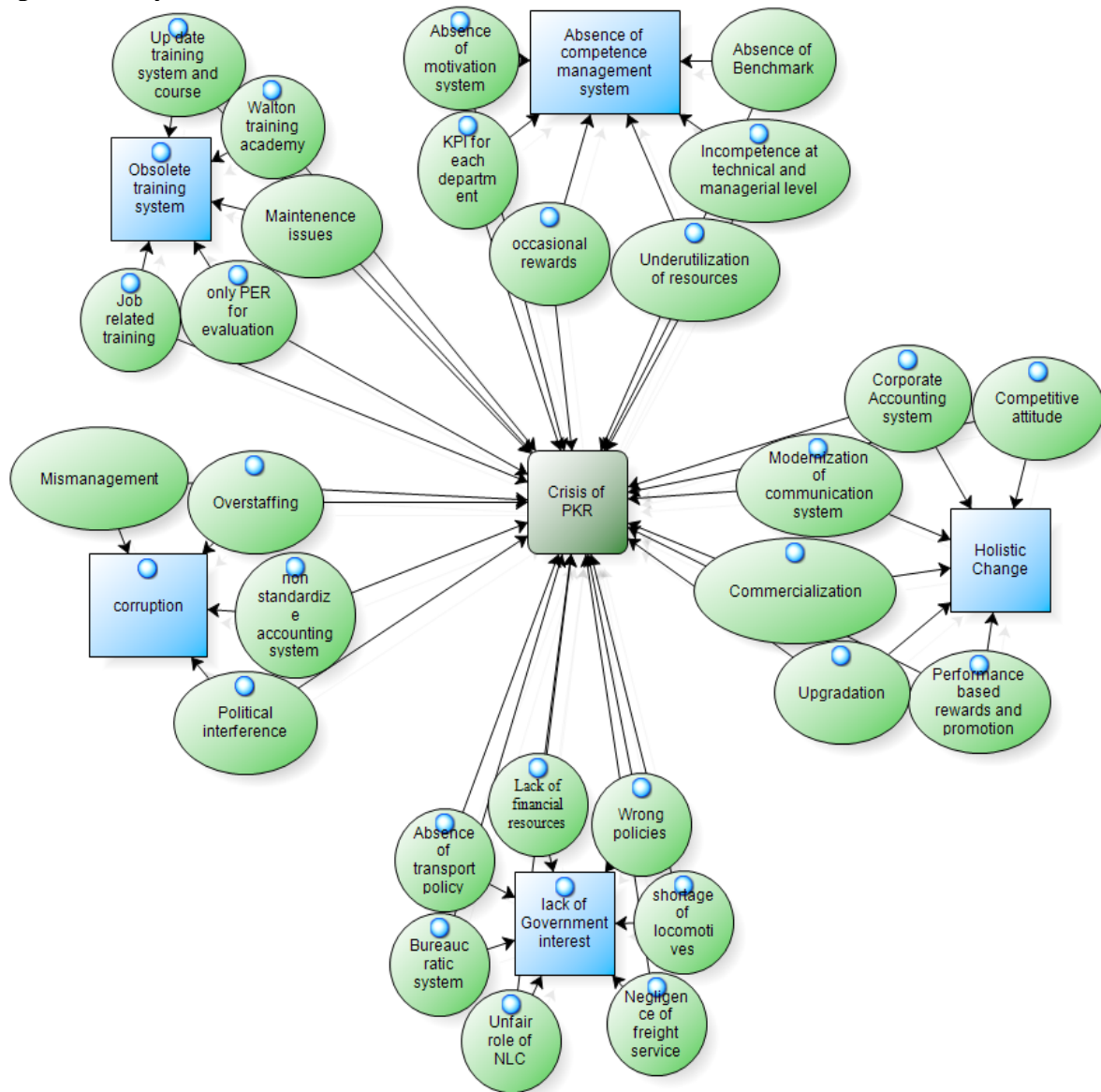


Figure 3: Word Tree Map

