Policy Research Journal
ISSN (E): 3006-7030 **ISSN (P) :** 3006-7022 **Volume 4, Issue 3, 2026**

OPERATIONAL EFFICIENCY AND FINANCIAL SUSTAINABILITY OF PESHAWAR ELECTRICITY SUPPLY COMPANY

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DOI: http://doi.org/10.5281/zenodo.20636827

Keywords
PESCO, Electricity Distribution, System Losses, Collection Efficiency, ARDL, Pakistan

Article History
Received: 29 January 2026
Accepted: 14 March 2026
Published: 28 March 2026

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Abstract
The aim of this study is to analyze the operational and financial performance of the Peshawar Electricity Supply Company (PESCO) using yearly from 2004 to 2025. PESCO is one of the major electricity distribution companies (DISCOs) in Pakistan, responsible for supplying power to Khyber Pakhtunkhwa province. This research examines trends in consumer growth, electricity losses, billing, collection efficiency, and infrastructure enhancement. Time series data and econometric techniques like unit root tests, cointegration analysis, and Autoregressive Distributed Lag (ARDL) models have been used for analysis, the study examines the determinants of system losses and collection efficiency of the organization. The results disclose that PESCO has an average loss percentage of 35.6% and an average collection efficiency of 86.5%. The analysis indicates that consumer growth reduces losses in the long run, while low-tension (LT) line expansion increases line losses. Collection efficiency is positively affected by consumer growth but decreases by losses and LT line expansion. The study concludes that PESCO faces insistent operational and financial challenges that need targeted policies, including high-tension (HT) line investment and enlargement, careful management of LT line expansion with better anti-theft measures, and stronger administration and collection policy implementation.

1. Introduction

1.1 Background of the Study

The Peshawar Electricity Supply Company (PESCO) is one of the ten major electricity distribution companies (DISCOs) in power sector in Pakistan. It provides electricity to the Khyber Pakhtunkhwa province of the country. The performance of PESCO is vital for the socio-economic development of the area, as electricity is used in homes, schools, hospitals, commercial businesses, and agricultural sector.

PESCO functions within a national power sector that was restructured in the 1990s. The sector shifted from a single state-owned monopoly (WAPDA) into separate three entities for generation, transmission, and distribution. An independent regulator, NEPRA, was also created to foster efficiency and service quality (Mushtaq & Mirza, 2021). However, despite these reforms, many DISCOs, including PESCO, continue to struggle with long-lasting line losses and operational inefficiencies.

This research is significant for several reasons. First, it provides empirical evidence that can help NEPRA in its regulatory role and policy formation. Mushtaq and Mirza (2021) argue that NEPRA's service quality standards may not be accurately determined, and this study can provide concrete data from PESCO to enlighten better operational policies and loss reduction strategies.

Second, the poor financial performance of DISCOs like PESCO is a primary cause of

Pakistan's crippling "circular debt" (Bacon, 2019). By examining the line losses and collection inefficiencies, this study can provide beneficial information for their enhancement.

Finally, while there are existing studies on power sector of Pakistan and its reforms (Bacon, 2019) and cross-company efficiency analyses (Mirza, Mushtaq & Ullah, 2017; Mushtaq & Mirza, 2021), there is a lack of a focused, long-term case study on an individual DISCO like PESCO. This research aims to fill that gap by providing a deeper understanding of the unique challenges this company faces.

2. Literature Review

2.1 History of Power Sector Reforms in Pakistan

The problems faced by PESCO are deep-rooted in the power sector of Pakistan. Bacon (2019) provides a comprehensive overview, describing the shift from a state-owned, monopoly (WAPDA and KESC) to an unbundled structure in the late 1990s. The reforms were motivated by chronic inefficiency, power shortages, and the need to attract private investment (Kessides, 2013). However, as Bacon (2019) claims, the reform process was delayed and left incomplete. The privatization of other DISCOs, following the controversial privatization of K-Electric, never happened. This left DISCOs, including PESCO, as government owned entities caught in a half-reformed state. They are corporatized in name but lack factual managerial and financial self-sufficiency. Mushtaq and Mirza (2021) support this view, stating that high energy losses and poor bill recovery are caused by poor, inefficient management. Khan, Batool, and Fatima (2023) conducted a seminal investigation into Pakistan's Distribution Companies (DISCOs), including PESCO, coining the term "zombie companies" to describe their financial state. Their study, published in the Pakistan Journal of Social Research, analyzes whether DISCOs can survive in a competitive market environment following NEPRA's approval of the Competitive Trading Bilateral Contracts Market (CTBCM) roadmap in November 2020. The research discloses that the financial statements of all ten DISCOs reveal their fundamental inability to procure power without sovereign guarantees from the government. Complementing this perspective, a comprehensive analysis by the Pakistan Institute of Development Economics (PIDE) (2024) examines the governance crisis in state-owned DISCOs. The research finds that the power distribution sector's main challenges are institutional weaknesses, centralized control under the Ministry of Energy-Power Division, and weak corporate governance. Notably, the study reveals that in FY2021, almost one-fifth of the electricity generated in Pakistan was lost in the transmission and distribution system. More surprisingly, the revenue collection rates across DISCOs range from a shocking 40 percent in Quetta Electric Supply Company (QESCO) to 89 percent in Islamabad Electric Supply Company (IESCO). The transmission-level restraints that affect DISCO performance have been thoroughly documented in another PIDE research report (2024), which gives a comprehensive review of the National Transmission and Dispatch Company (NTDC) . This analysis reveals that transmission constraints resulted in a loss of PKR 20.203 billion in FY2023 alone. The study describes that 15 (500 kV) and 39 (220 kV) transmission lines are overloaded at 80 percent or above capacity, while paradoxically, 53 (500 kV) and 65 (220 kV) lines remain underutilized at 30 percent or less showing a clear indicator of inadequate and poor planning. For PESCO, which depends on NTDC's infrastructure to receive power from generation plants, these transmission blockages directly translate into supply disruptions, low voltage, and ultimately less recovery. The report further documents that the system's interruption frequency has increased by 400 percent, and the total financial impact caused by supply loss incidents amounted to approximately PKR 11.9 billion from FY2015 to FY2023.

2.2 Determinants of Electricity Utility Performance

There are many factors that can affect the performance of a distribution company like PESCO. System inefficiency (Technical and Non-

Technical losses) is the main and vital factor. Jamil and Ahmad (2014) describe losses as the difference between energy input and energy output (unit billed). Technical losses occur due to obsolete transmission infrastructure, while non-technical losses like theft and meter tampering are key issues of the electricity sector. Studies explains that economic factors like high prices and low per-capita income drive or cause electricity theft. Recent research by Aimwata and Sunde (2025) published in Utilities Policy, study the drivers and components of financial performance and sustainability in electricity distribution sector of Namibia using a mixed-methods case analysis. Their study integrates econometric technique with qualitative insights to examine operational capabilities and external constraints impact on utility results. Metering quality, staff competency, trust on institutional, and socioeconomic factors such as poverty and unemployment are identified by the study as key components of revenue outcomes. The research reveals that revenue losses due to poverty, unemployment and electricity theft through interaction effects of these factors. Research also shows that the utility companies financial position declines quickly when they fail to collect bills. Jamil and Ahmad (2014) say in their study that low bill recovery rate is a form of post-sales theft. Low bill recovery rate is links directly to the circular debt problem by Bacon (2019), where distribution sector inability to pay GENCOs creates a chain of default that eventually burdens the sector and national financial situation. The PIDE governance study (2024) explains that in FY2020, more than 50 percent of arrears in the power supply chain were due to low bill recoveries and the difference between allowed and actual line losses as suggested and determined by NEPRA. The study critically observers that NEPRA uses T&D loss targets as a tool to improve operational performance, but this strategy is not working for most DISCOs because there is no rigid punishment or penalty in utility poor performance and mismanagement. This absence of accountability and answerability creates a moral threat where the management has lack of interest to improve their performance, knowing that government bailouts will finally happen. Due to the hike in electricity price and prolonged load shedding the wealthy consumers are increasingly buying and turning to solar power, which reduces their demand for grid electricity. DISCOs must purchase the excess electricity from solar-equipped consumers while constantly facing decline in demand for its own supply thus face a double financial blow.

2.3 Measuring Efficiency: Methodological Approaches

Several vigorous methodologies for analyzing utility company performance are provided by the existing literatures. Many studies like Xavier et al., 2015; Medeiros et al., n.d.; Mushtaq et al., n.d. use Data Envelopment Analysis (DEA) to standard utilities. DEA is a non-parametric technique that build an "efficiency frontier" to measure the relative efficiency comparisons without requiring specification of a functional form. Stochastic Frontier Analysis (SFA) was used by Mirza, Mushtaq, and Ullah (2017) for analysis, this method assesses the efficiency dynamics over time. SFA accounts random shocks caused by factors such as measurement error or weather events, making it useful for isolating inefficiency. The study of Johansson and Pajtlar (2025) in Sweden gives important comparative insights into these methodological approaches. Their research uses 148 distribution system operators (DSOs) in Sweden data to compares DEA and SFA using eleven model simulations. The study examines the efficiency scores components like methodological choices, parameter selection, and company characteristics. The study found that efficiency scores are strongly affect by parameters such as number of customers, network stations, transferred energy, and outage costs. Boente and Lustosa (2020) uses Structural Equation Modeling (SEM) approach, to understand the determinants of efficiency. Their research finds that a utility's efficiency is influenced by factors like information systems, structural systems, and management systems. Jamil and Ahmad (2014) employ Fixed Effects models in their study using Least Squares Dummy Variable (LSDV) and Generalized

Method of Moments (GMM) to analyze electricity theft across Pakistani distribution companies, providing econometric approaches specifically standardized to the Pakistani context.

3. Data and Methodology

3.1 Research Design

This study uses time-series analysis of secondary data by employing a quantitative research design. This is descriptive and analytical study, to describe trends and analyze relationships between key performance variables of PESCO over a 22-year period (2004-2025).

3.2 Data Sources and Variables

The data for the study is collected from NEPRA State of Industry Reports. The main variables are shown in Table 1.

Table 1: Description of Variables

Variable Category	Variable Name	Symbol	Definition/Measurement	Data Source
Dependent Variables	Unit Loss	Loss_u	Units received (GWh) - Units sold (GWh)	NEPRA Reports
	% Loss	Loss%	(Unit loss / Unit received) × 100	NEPRA Reports
	% Collection	Coll%	(Collection / Billing) × 100	NEPRA Reports
Independent Variables	No. of Consumers	Cons	Total registered electricity consumers	NEPRA Reports
	Unit Received	Unit_rec	Electricity received from grid (GWh)	NEPRA Reports
	Unit Sold	Unit sold	Electricity billed to consumers (GWh)	NEPRA Reports
	Billing Amount	Bill	Total amount billed (Million Rs.)	NEPRA Reports
	Collection Amount	Coll	Total amount collected (Million Rs.)	NEPRA Reports
	HT Line Length	HT_km	High tension lines length (km)	NEPRA Reports
	LT Line Length	LT_km	High tension lines length (km)	NEPRA Reports

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Variable Category	Variable Name	Symbol	Definition/Measurement	Data Source
	Consumer Growth Rate	ConsGR	Year-over-year % change in consumers	Calculated

4. Data Analysis

4.1 Descriptive Analysis

The below table 2 presents the descriptive statistics for the key operational variables used in the study, providing a summary of the data for 22-year period.

Table 2: Descriptive statistics

	CONS	UNITREC	UNITSOLD	UNITLOSS	BILL	COLL	HT_LINE_KM	LT_LINE_IN_KM
Mean	3060521	12493.24	8046.514	4340.766	123202.4	109482.5	36871.68	43023.64
Median	2912173	12303.98	8343.515	4065.695	87296.66	76327.21	36483.5	43907
Maximum	4512565	16569.48	10355.18	5935.95	382581.7	352826.1	52561	47705
Minimum	1951400	7742	5310	2432	28867	26734	25438	34865
Std. Dev.	776152.7	2202.88	1241.573	946.3761	105418.6	98921.84	5800.108	3408.905
Skewness	0.412169	-0.139115	-0.366294	0.169103	1.309108	1.336384	0.385256	-1.024036
Kurtosis	2.027958	2.571092	2.698413	2.273951	3.575875	3.588579	4.036639	3.18521
Jarque-Bera	1.489033	0.239593	0.575337	0.58807	6.587792	6.865935	1.529284	3.876494
Probability	0.474964	0.887101	0.75001	0.74525	0.037109	0.032291	0.465501	0.143956
Sum	67331456	274851.3	177023.3	95496.86	2710452	2408614	811177	946520
Sum Sq. Dev.	1.27E+13	1.02E+08	32371598	18808184	2.33E+11	2.05E+11	7.06E+08	2.44E+08

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Observations	22	22	22	22	22	22	22	22

During the 22 years study , the consumer base of PESCO increases to doubled from 1.95 million to 4.51 million.

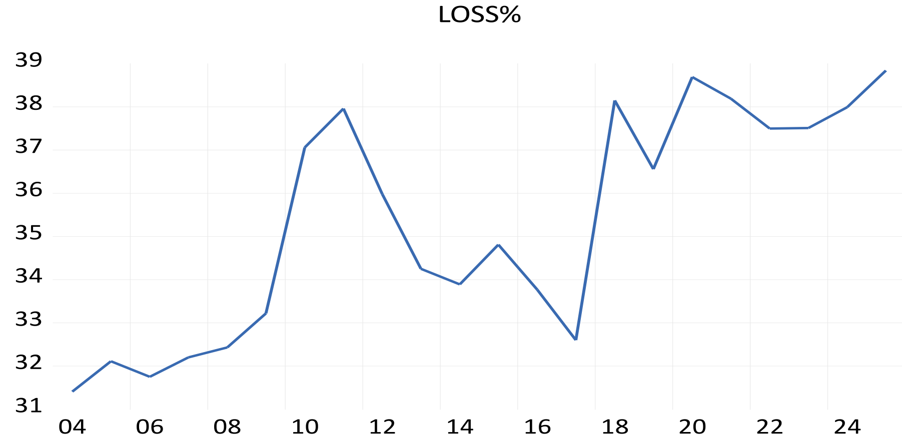
The average annual unit loss is 4,341 GWh, which is **35.6**% of total electricity received from the grid. This shows that out of every 100 units of electricity, only about 64 are actually sold and billed to the consumer the reaming 36% is lost.

The average annual billing is Rs. 123,202 million, and the average collection is Rs. 109,483 million, creating an average annual shortfall of Rs. 13,719 million that is around 11.1%.

The HT line's structure expanded by 106%, and LT lines grew by 37%. Consumer growth is recorded as 131% rise.

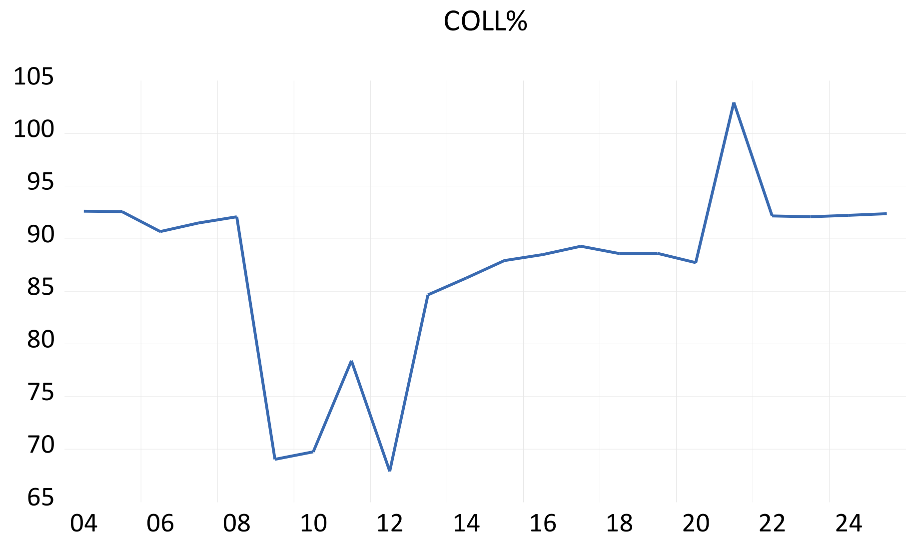
4.2 Trend Analysis

Figure 1: PESCO Loss Percentage Trend (2004-2025)



The line graph of loss percentage trend shows that PESCO's losses have remained high and constant, ranging between 31% and 39% during the study period.

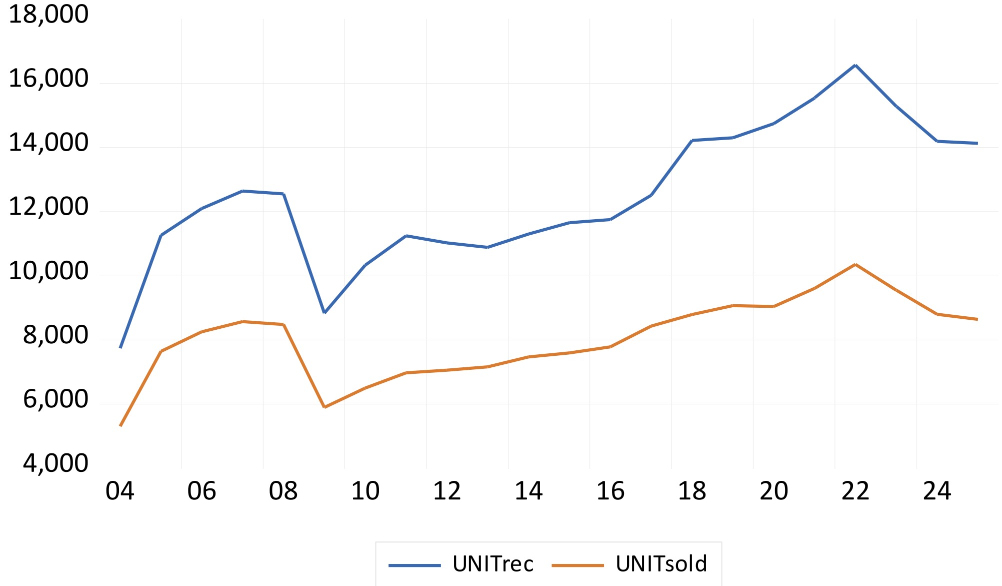
Figure 2: PESCO Collection Percentage Trend (2004-2025)



Policy Research Journal
ISSN (E): 3006-7030 ISSN (P) : 3006-7022 Volume 4, Issue 3, 2026

Collection efficiency remained above 90% from 2004-2008, then collapsed to around 69% in 2009-2010 during the peak of Pakistan's energy crisis as shown by the above line graph. Collection has improved after 2011, reaching around 88-89% in recent years.

Figure 3: Units Received vs. Units Sold



The figure shows a line graph of Units Received and one for Units Sold. The gap between units received and units sold visually represents system losses. This gap has widened over time, indicating that absolute losses have increased as the system has expanded over the time.

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4.3 Correlation Analysis

Table 3: Correlation Matrix

	LOSS%	COLL%	CONS	CONS_DENS	HT_KM	LT_KM
LOSS%	1.000					
COLL%	-0.010	1.000				
CONS	0.783	0.353	1.000			
CONS_DENS	0.732	0.459	0.977	1.000		
HT_KM	0.777	0.185	0.932	0.837	1.000	
LT_KM	0.779	0.025	0.875	0.794	0.888	1.000

Losses and Consumer Base: Loss percentage is strongly positively correlated with consumers (0.78), HT line length (0.78), and LT line length (0.78) as shown in the above correlation matrix table. This shows that the expansion of transmission line also increases the losses proportionally.

Collection and Other Variables: Collection percentage shows weak correlation with most of the other variables.

4.4 Unit Root Tests

All the variables were tested for stationarity using the Augmented Dickey-Fuller (ADF) test before econometric analysis. The results are mentioned in below Table 4 indication a mix of stationary [I(0)] and integrated [I(1)] processes. This mixed order validates the use of the ARDL modeling approach for the analysis.

Table 4: Unit Root Test Results

Variable	Test Specification	ADF Statistic	5% Critical Value	p-value	Order	Conclusion
LOSS%	2nd Difference, Constant	-5.18	-3.02	0.0005	I(1)	Stationary
CONSGR	2nd Difference, Constant	-5.80	-3.03	0.0002	I(1)	Stationary
UNITRECGR	Level, Constant, 1 lag	-3.97	-3.03	0.0074	I(0)	Stationary
HTLINEKMGR	2nd Difference, Constant	-4.33	-3.03	0.0036	I(1)	Stationary
LTLINEGR	2nd Difference, Constant	-6.97	-3.03	0.0000	I(1)	Stationary
COLLGR	Level, Constant	-3.49	-3.02	0.0196	I(0)	Stationary

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4.5 ARDL Model for Loss Determinants

Table 5: ARDL Results for Loss Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOSS(-1)	-1.137667	0.593036	-1.918376	0.1132
LOSS(-2)	0.323212	0.235725	1.371138	0.2287
CONSGR	-1.450006	0.429925	-3.372694	0.0198
CONSGR(-1)	-3.448626	1.037482	-3.324036	0.0209
CONSGR(-2)	-4.258252	1.8475	-2.304844	0.0694

Variable	Coefficient	Std. Error	t-Statistic	Prob.
		23		
HTLINEKMGR	-0.853274	0.241485	-3.533446	0.0167
HTLINEKMGR(-1)	-1.605477	0.646420	-2.483642	0.0556
LTLINEGR	0.362995	0.285418	1.271804	0.2594
LTLINEGR(-1)	1.182073	0.594840	1.987214	0.1036
LTLINEGR(-2)	5.140056	1.604	3.204399	0.0239

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
		063		
UNITRECGR	0.003985	0.000892	4.470100	0.0066
UNITRECGR(-1)	0.001975	0.001172	1.684764	0.1528
UNITRECGR(-2)	-0.000652	0.000597	-1.092298	0.3245
C	29.20178	8.062936	3.621730	0.0152
R-squared		0.9544		
Adjusted R-squared		0.8360		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
F-statistic		8.0589		
Prob(F-statistic)		0.0156		
Durbin-Watson		2.3565		

The results in Table 5 show a well-fitted model (R-squared = 0.954). The significant variables are as follows

Consumer Growth (CONSGR): Negative and significant, indicating increase in the number of consumers reduces losses.

HT Line Growth (HTLINEKMGR): Negative and significant, showing HT line expansion reduces losses.

LT Line Growth (LTLINEGR): Positive and significant, indicating LT line expansion increases losses.

Units Received (UNITRECGR): Positive and significant, meaning more load increases loss percentage.

4.6 Bounds Test for Cointegration (Loss Model)

The ARDL bounds test, confirms a long-run cointegrating relationship among the variables. The F-statistic (4.923) exceeds the upper bound critical value at the 5% significance level.

The long-run coefficients in Table 6 show that consumer growth and HT line growth reduce losses, while LT line growth and units received increase losses.

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Table 6: Long-Run Coefficients (Levels Equation)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CONSGR	-5.046630	0.724944	-6.961408	0.0009
HTLINEKMGR	-1.355090	0.221341	-6.122174	0.0017
LTLINEGR	3.684370	0.666196	5.530459	0.0027
UNITRECGR	0.002926	0.000311	9.413469	0.0002
C	16.09397	1.894060	8.497073	0.0004

4.7 Error Correction Model (Loss Model)

The error correction term (CointEq(-1)) is -1.814 and highly significant (p = 0.0006), confirming that losses adjust quickly to correct deviations from long-run equilibrium.

4.8 Diagnostic Tests (Loss Model)

Diagnostic tests on the residuals, shown in Table 7, confirm the model's validity. The Breusch-Godfrey test shows no serial correlation (p=0.4584), and the Breusch-Pagan-Godfrey test shows no heteroskedasticity (p=0.8593).

Table 7: Diagnostic Test Results for ARDL Loss Model

Test	Test Statistic	p-value	Result
Breusch-Godfrey LM Test	F = 1.0230	0.4584	**Passed**
Breusch-Pagan-Godfrey Test	F = 0.4922	0.8593	**Passed**
Durbin-Watson Test	d = 2.3565	-	**✓ Passed**

4.9 ARDL Model for Collection Efficiency

An ARDL model was also estimated with COLL% as the dependent variable. The results in Table 8 show a very well-fitted model (R-squared = 0.980).

Table 8: ARDL Model Results for Collection%

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CONSGR	4.713995	1.011855	4.658767	0.0096
CONSGR(-1)	10.68615	1.969176	5.426710	0.0056
LOSS	-3.031061	0.891734	-3.399063	0.0273
LOSS(-1)	-2.807740	0.741877	-3.784644	0.0194
LTLINEGR(-1)	-5.967483	1.637814	-3.643565	0.0219
C	401.5786	90.85637	4.419928	0.0115
R-squared	0.9803			
Adjusted R-squared	0.9113			
F-statistic	14.2094			
Prob(F-statistic)	0.0101			

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
Durbin-Watson		2.0349		

Key Findings:

1. **Consumer Growth Improves Collection:** CONSGR has strong positive effects (4.71, p=0.0096) and at lag 1 (10.69, p=0.0056).
2. **Losses Reduce Collection:** LOSS has negative effects at various lags (e.g., -3.03, p=0.0273).
3. **LT Line Growth Reduces Collection:** LTLINEGR has negative effects, with lag 1 significant (-5.97, p=0.0219).

4.10 Error Correction Model (Collection Model)

The error correction term (CointEq(-1)) is -2.249 and highly significant (p = 0.0007), confirming a long-run relationship and rapid adjustment to equilibrium.

The error correction term (CointEq (-1) = -2.249) is negative and statistically significant at the 1% level, confirming the long-run relationship and indicating rapid adjustment back to equilibrium following a shock.

To check the validity and reliability of the estimated ARDL model, a series of diagnostic tests on the residuals conducted, results are as follows.

Table 9: Diagnostic Test Results for ARDL Collection Model

Test	Test Statistic	p-value	Result
Breusch-Godfrey LM Test	F = 1.7446	**0.3644**	**✓ Passed**
Breusch-Pagan-Godfrey Test	F = 6.5012	**0.0419**	Mild
Durbin-Watson Test	d = 2.0349	-	**✓ Passed**

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As shown in Table 9, the Breusch-Godfrey LM test yields a p-value of 0.3644, indicating no serial correlation. The Durbin-Watson statistic (2.0349) is very close to 2, further confirming the absence of autocorrelation. However, the Breusch-Pagan-Godfrey test indicates mild heteroskedasticity at the 5% significance level (p = 0.0419).

Table 10: Summary of Both Models

Aspect	Loss Model (LOSS%)	Collection Model (COLL%)
Selected Model	ARDL (2,2,1,2,2)	ARDL (2,2,2,2,2)
R-squared	0.9544	0.9784
Adj R-squared	0.8360	0.9569
Cointegration	Confirmed	Confirmed

Aspect	Loss Model (LOSS%)	Collection Model (COLL%)
Error Correction Term	-1.814 (p=0.0006)	-2.249 (p=0.0007)
Diagnostics	Passed	Passed

5. Discussion

This study intended to analyze the operational and financial performance of PESCO over 22 years. The findings of the analysis provide significant insights.

The results indicate that PESCO's losses are persistently high. The average loss percentage is around 35.6% which is far above international standard. There is no clear downward trend indicating the success of past efforts of loss reduction.

The collection efficiency has improved but still remains below target. The recovery was lowest about 69% during 2009-2010 crisis, that has improved, but the current 88-89% rate is still below the target and not ideal thus increases the circular debt problem in the sector.

The results suggest that consumer growth reduces losses is which is significant. This suggests the electrification of new area and new connections are more beneficial. The finding that HT line expansion reduces losses provides empirical support for continued investment in high-tension line and grid infrastructure.

However, LT line expansion increases line losses and also reduces revenue collection, which is a alarming factor. This suggests that expanding the low-tension network provide more chances of electricity theft thus reduce performance, proper anti-theft measures and enforcement can enhance the performance. This supports Mushtaq and Mirza's (2021) argument about weak administrative capacity.

Bacon (2019) argued that the interconnected problems of losses and collection in efficiency must be addressed together. The strong link between losses and collection established by the analysis, confirms this argument.

6. Conclusion

This study concludes that PESCO faces persistent operational and financial challenges. Losses remain consistently high at over 35%, and collection efficiency, remains below target. These two problems are closely linked.

Though, the study also identifies clear pathways for improvement. Consumer growth consistently improves performance, suggesting that new connections are a positive force. HT line investment pays off in reduced losses. The main challenges are LT line expansion, which appears to create problems, and the weak link between billing and collection.

The findings support the arguments in the literature that Pakistan's power sector problems are deep-rooted and require comprehensive solutions focused on improving governance, accountability, better management and targeted empirical interventions.

7. Policy Recommendations

7.1 Recommendations for PESCO Management

Continue connecting new consumers while maintaining strict monitoring plans. Prioritize HT line investment in capital budgeting as it helps in reducing the losses. When expanding LT lines, it must be accompanied by enhanced anti-theft measures, better payment enforcement, and improved maintenance and monitoring. Integrated policy implementation in high-loss, low-collection areas that combine theft detection with bill collection campaigns. Focus on enforcement mechanisms for bill collection, including prompt disconnection of defaulters and easy payment options.

7.2 Recommendations for NEPRA

establish realistic but progressively tightening loss reduction targets and provide incentives for achieving them. Investigate the systemic problem of LT expansion and consider standards for anti-theft measures and collection performance in newly electrified areas. Continue improving data quality and availability, including monthly data and data on theft detection and enforcement.

7.3 Recommendations for Government

Address the circular debt by implementing recommendations from task forces and supporting DISCOs in enforcement actions. Prioritize transmission and distribution infrastructure in public investment programs, recognizing that HT investment can pay for itself. Strengthen legal frameworks to support DISCOs in prosecuting electricity theft and dealing with defaulters.

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