
**EFFECTS OF LOADSHEDDING ON RETAIL BUSINESS:
A GLIMPSE FROM HYDERABAD, PAKISTAN**

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ABSTRACT

Retail markets provide wide range of goods for public, reliable electricity supply is considered to be vital for the operations of retail businesses. Pakistan has been facing serious energy crisis which have severe effects on all spheres of life from academia to industries. Literature is found about effects of loadshedding on socio economic life, industry, SMEs and education. This is first type of its study that focused the loadshedding issues in retail market. This study is based on a quantitative survey using closed-ended questionnaire. Sample consists of 262 was randomly selected from retail market of Hyderabad. Data was analyzed using SPSS 22.0 in terms of Bar Charts and multiple regression. Results show that 65 percent respondents stated there is 6 to 8 hours loadshedding in their area, 55.3 percent use UPS as alternative for electricity, 49 percent of them said that their 75 percent to 100 percent operations depend on electricity, 40 percent stated that loadshedding has affected their business 50 percent to 75 percent. 'Problem in dealing customer' and 'Decrease in sales' and 'Waste of time' were found to be the main factors that effect on business due to loadshedding, while other factors like 'increase in cost', 'waste of time', 'product damage' and 'health problems' were also found to be effects of loadshedding. It is imperative to take result oriented actions rather raising slogans to end it or remain oblivion because it is concern for the public at large and we all are beneficiaries of retail markets.

Keywords: Loadshedding, Retail Business, Hyderabad

INTRODUCTION

Hyderabad is the second largest city of Sindh province and an ideal home for urbanization. People from the whole province shop there. Markets in Hyderabad facilitate a vast and growing population of the district along with other adjacent districts. Retail markets play vital role in providing a wide range of goods that can be necessities to auxiliaries for public, and also provide job opportunities. Business depends on electricity in accomplishment of various tasks. It can be machine operations or use of light not only at night but in daytime as well. Access

to reliable electricity supply is considered vital for the operations of most of retail businesses.

Electricity reflects socio-economic development of a country. It is pivotal for operations of industries, markets, and educational institutes, while lifeblood for cities.

Currently Pakistan is facing severe energy crisis. Country's energy infrastructure is evidenced to be poorly managed and underdeveloped. The economy is badly affected by electricity crisis with loss of massive funds. Rapid surge in demand, power theft, seasonal reductions in the availability of hydropower and transmission losses due to archaic infrastructure have deteriorated the situation. Thus, the demand exceeds supply and therefore loadshedding has become an inevitable phenomenon through power shutdown.

Pakistan was hit by its worst power crisis in 2007 when production fell by 6000 Megawatts with massive shutdowns. Since then Pakistan has been facing serious energy crisis which have severe effects on all walks of life from academia to industries. Current shortfall has increased to over 5,000 to 6,000 megawatt (MW), which was 4,760 MW in 2016. Whereas demand has also surged by 2,700 MW as compared to 2016, which was estimated 18,000 MW (Associated Press of Pakistan, 2016), (Jabri, 2017). Pakistan has 65,000 megawatts of identified projects and 100,000 MW potential (Qazilbash, 2015).

Many countries like China, Iran, India and Tajikistan, Germany, Qatar, Kuwait and some other countries have been offering to export electricity to Pakistan to overcome the growing electricity crisis (Islamabad Chamber of Commerce & Industry, 2012).

Energy conservation at all level in the country is deemed a solution to the current disastrous situation. Pakistan can utilize alternate energy such as wind and solar power urgently to overcome the shortages, whereas coal and dam projects can solve the problem on long-term basis.

RELEVANT LITERATURE

Literature is found about effects of loadshedding on socio-economic life, industry, SMEs and education, this is first type of its study that focused the loadshedding issues in retail market. Rozee.pk (2012) survey on loadshedding in Pakistan found 42% of respondents face 4-8 hours of loadshedding at workplace every day. While enquiring about alternate or backup power supply 42% responded to not have any, whereas 39% having UPS, 13% use a generator, and 6% use both.

Cheema, *et.al.*, (2015) sought to identify impact of loadshedding on socio economic life of people of Sargodha city, wastage of time was also

found by them a major issue which hinder people to complete their work in required time period. Panzer (2010) stated that industrial sector of Pakistan has also suffered a lot due to intensive loadshedding. Zaman, et al. (2012) conducted a research study on problems faced by university Students due to loadshedding and found waste of time as a result. There were also problems with delivery of lecture on multimedia late in assignments submission and problems of attempting exam pare were identified.

Rud (2012) concluded while investigating industrial development in India that consumption of electricity are generally understood to be positively correlated with productivity and economic growth. Scott, *et.al.*, (2014) reports insecurity of electricity affects on businesses overall costs and quality of product or service can be declined because of spoilage of materials or poorly functioning equipment while investigating the effects of electricity insecurity on businesses in low and middle income countries. BDO (2014) found high negative impact of loadshedding on operating cost, service delivery and serving customers and also found to have 5 to 10 hour working hours lost while conducting a survey in Cape Town, Durban, Pretoria and Johannesburg.

This study explored the effects retail business have due to loadshedding. Power generation and abolition of electricity theft will help in reliable electricity supply that will improve functioning of retail markets and ultimately benefit the consumers.

SIGNIFICANCE OF THE STUDY

This study will help in identifying the severity of loadshedding problem for retailers in empirical and objective manner that will provide imperative input for decision and policy maker. Retailers face this problem more severely because the cost they incur decreases their profit margin as compared to manufacturing concerns where cost can be adjusted by increasing prices.

LIMITATION OF THE STUDY

This study only collected the opinions of retailers. Adequate recordkeeping in retail markets can help in finding the effect of loadshedding on the various parametric factors.

OBJECTIVES OF THE STUDY

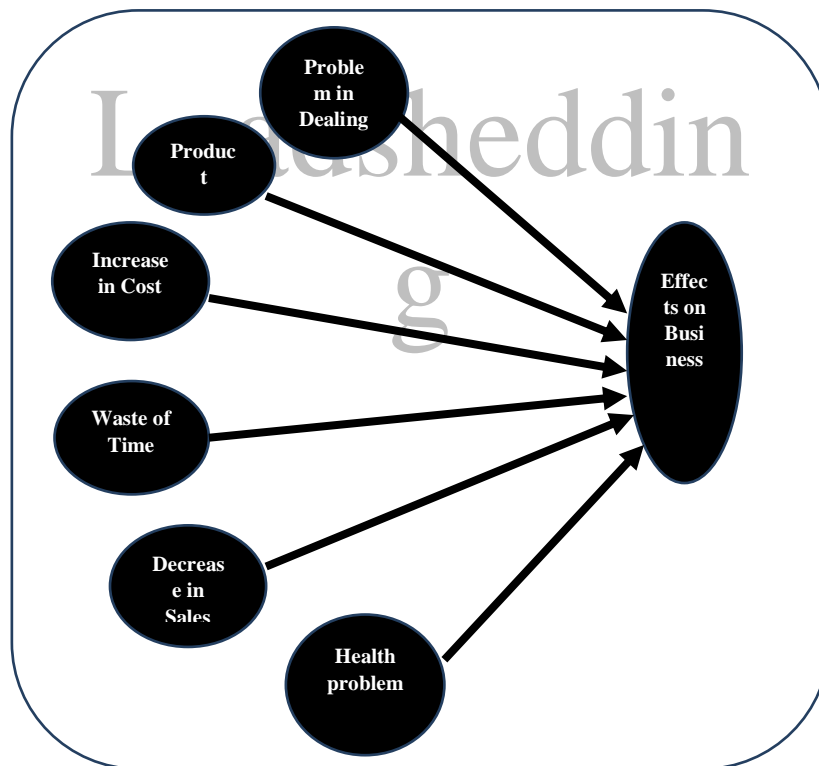
- To identify the problems faced by retailers in Hyderabad market because of loadshedding.

- To identify the effects of load shedding on retail business in Hyderabad market.

HYPOTHESES

1. Loadshedding adversely affects on Retail business.
2. Retail business is significantly affected by 'Problem in Dealing Customers' due to loadshedding.
3. Retail business is significantly affected by 'Product Damage' due to loadshedding.
4. Retail business is significantly affected by 'Increase in Cost' due to loadshedding.
5. Retail business is significantly affected by 'Waste of Time' due to loadshedding.
6. Retail business is significantly affected by 'Decrease in Sales' due to loadshedding.
7. Retail business is significantly affected by 'Health Problems' due to loadshedding.

CONCEPTUAL MODEL



RESEARCH METHODOLOGY

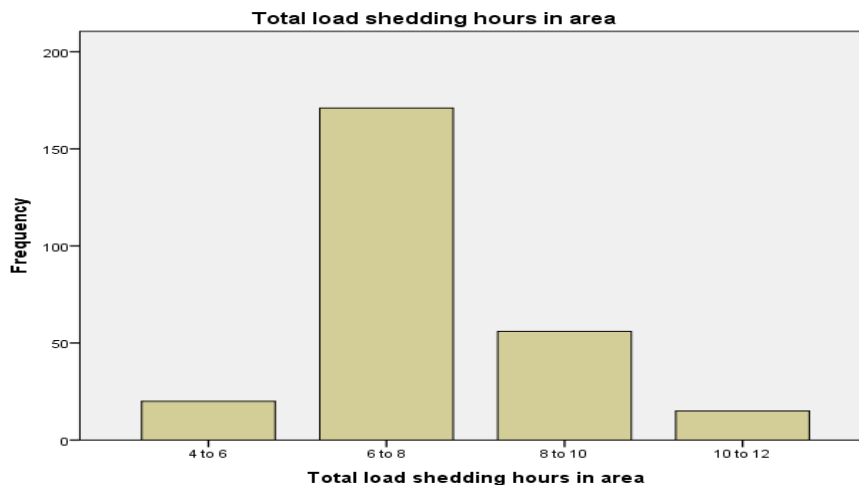
This is cross-sectional, quantitative, descriptive study. A pilot study was first conducted based on unstructured interviews, for exploring the effects that are identified by retailers in market. A quantitative survey was conducted afterwards using closed-ended questionnaire that was measuring response on interval scale and nominal scale. Target population is retail market of Hyderabad, sample consists of 262 retailers that were randomly selected from city of Hyderabad. Total 300 questionnaires were distributed to the respondent as done by Zaman, *et.al.*, (2012), and only 262 were returned that is 87 percent response rate.

DATA ANALYSIS AND DISCUSSION

Data were analyzed using SPSS 22.0 in terms of Bar Charts as done by (Zaman, *et.al.*, 2012), (Roze.PK, 2012), (BDO, 2014), and multiple regression was also calculated.

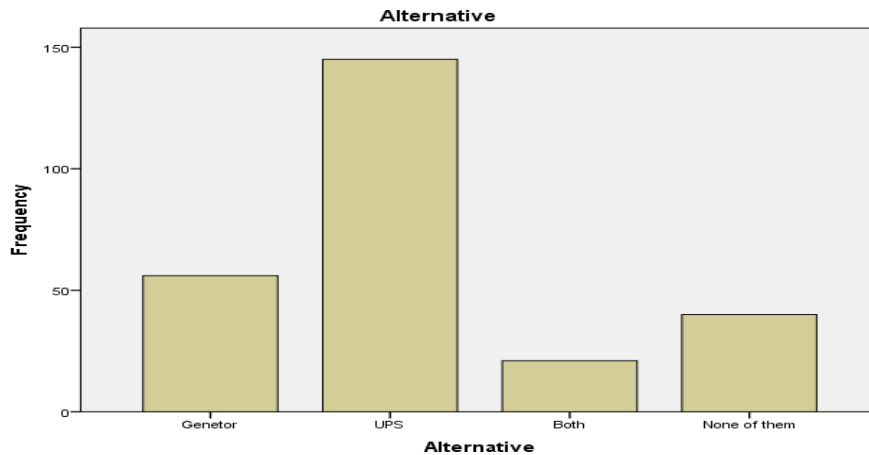
Results show that 65 percent respondents stated there is 6 to 8 hours loadshedding in their area, 21 percent said 8 to 10 hours, while 8 percent and 6 percent said 4 to 6 hours and 10 to 12 hours respectively, as shown in Chart 1.

LOADSHEDDING HOURS IN AREA



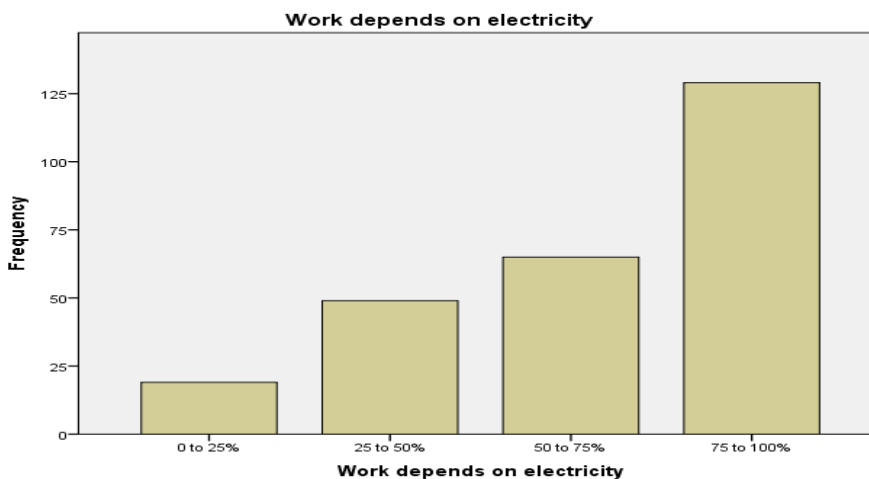
When it was asked that what alternative is used by them, then 55.3 percent stated UPS as alternative for electricity, 21 percent generator, while 8 percent uses both and 15 percent uses neither, exhibited in Chart 2.

Alternatives



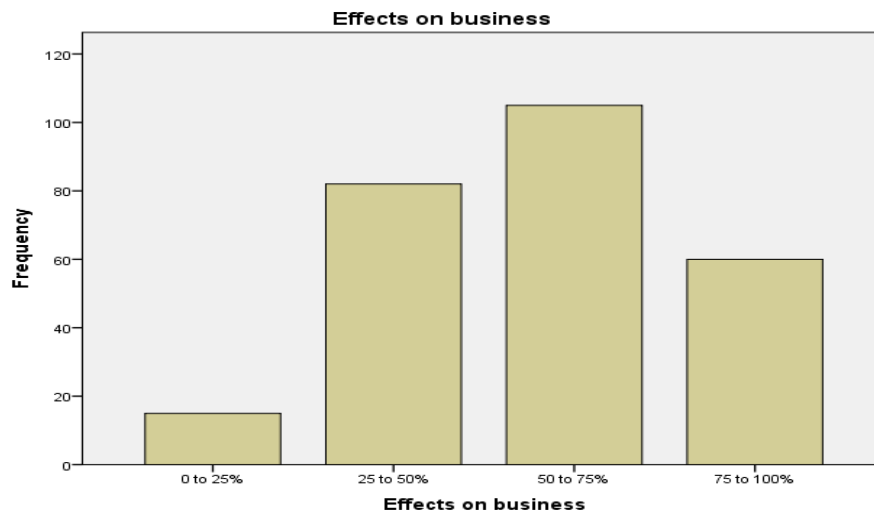
They were asked about how much of their work depends on electricity. A big majority that is 49 percent said that their 75 percent to 100 percent operations depend on electricity, 25 percent said 50 percent to 75 percent work depends on it, while 19 percent and 7 percent said 25 percent to 50 percent and ≤ 25 percent respectively. Shown in Chart 3.

Work Dependence



They were asked about how much their business is affected due to loadshedding. 40 percent stated that loadshedding has affected their business 50 percent to 75 percent. Second highest frequency that is 31 percent said 25 percent to 50 percent of their business is affected, while 23 percent and 6 percent said 75 percent to 100 percent and ≤ 25 percent respectively. Indicated by Chart 4.

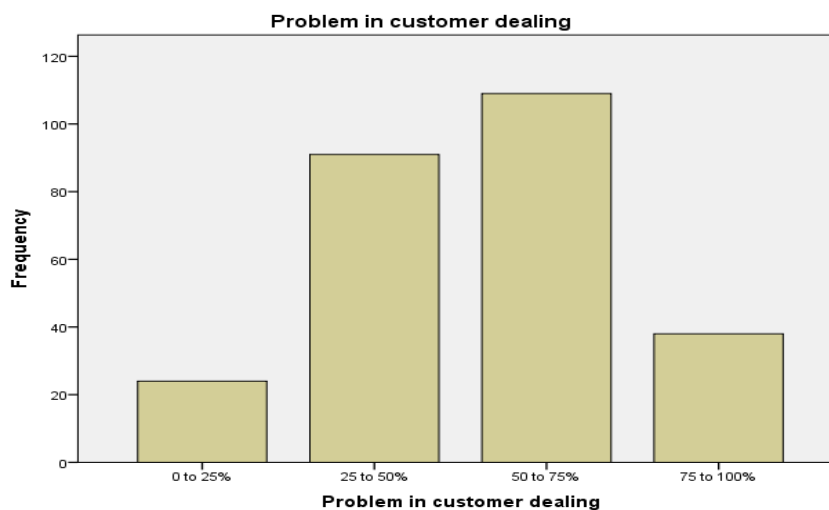
Effects on Business



A big majority said that business is affected by loadshedding, so it was analyzed that which factors are affected.

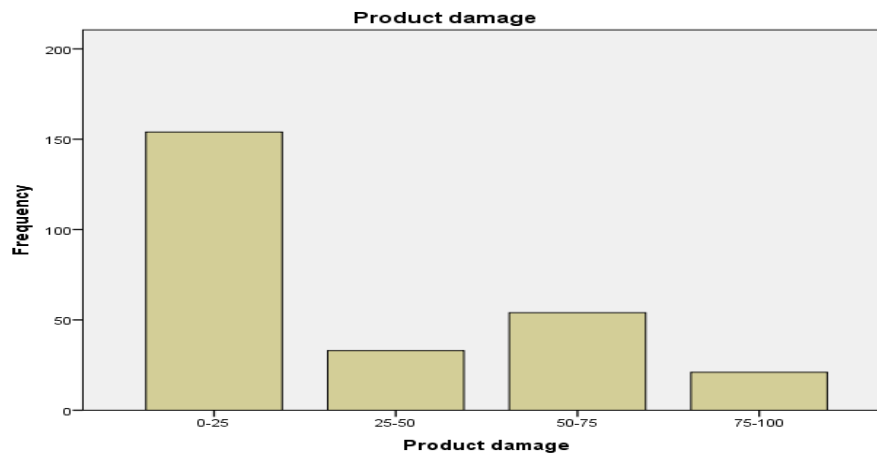
Customers Dealing is affected 50 percent to 75 percent as said by majority of 42 percent while 35 percent said 25 to 50 percent, 14 percent said they face 75 percent to 100 problem in dealing customer while 9 percent said ≤ 25 problems in dealing customers. As shown by Chart 5.

Problem in Dealing Customers



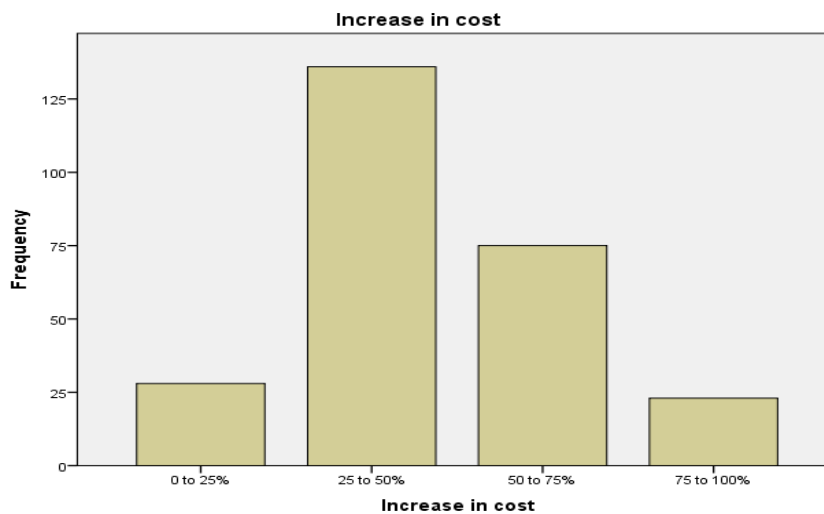
Product is damaged ≤ 25 as said by majority of 59 percent, 21 percent said 50 percent to 75 percent product is damaged, 13 percent chose 25 percent to 50 percent, while only 8 percent chose 75 percent to 100 percent damage to product due to loadshedding, Chart 6 shows it.

Product Damage



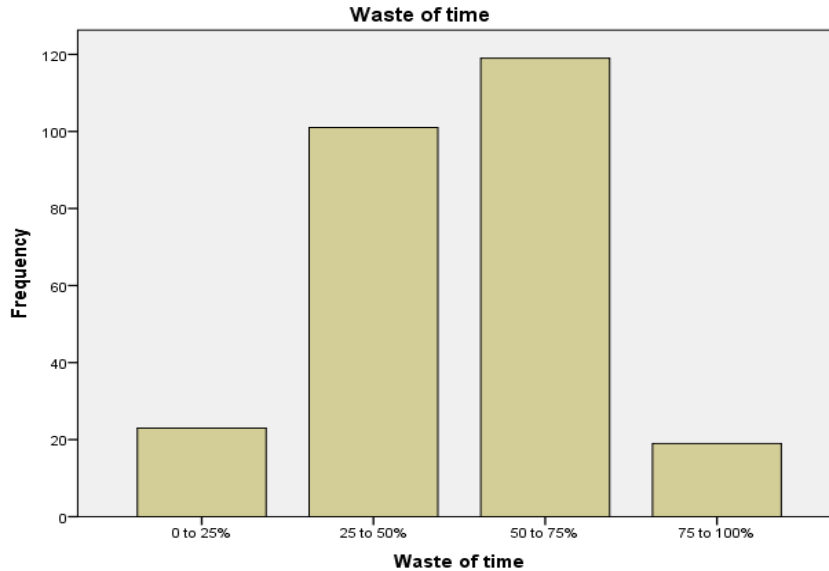
Cost is increased from 25 percent to 50 percent as said by majority of 52 percent, 29 percent said 50 percent to 75 percent cost is increased, 11 percent chose ≤ 25 percent increase in cost, and only 9 percent said their 75 percent to 100 percent cost is increased due to loadshedding. As shown in Chart 7.

Increase in Cost



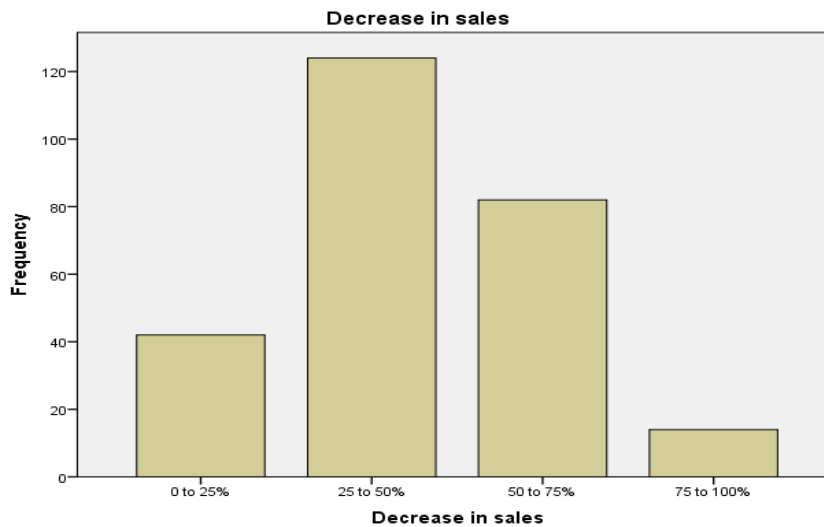
Time is wasted in their retail business from 50 to 75 percent as said by majority of 45 percent followed by 25 to 50 percent as said by 38 percent. Chart 8 exhibits.

Waste of Time



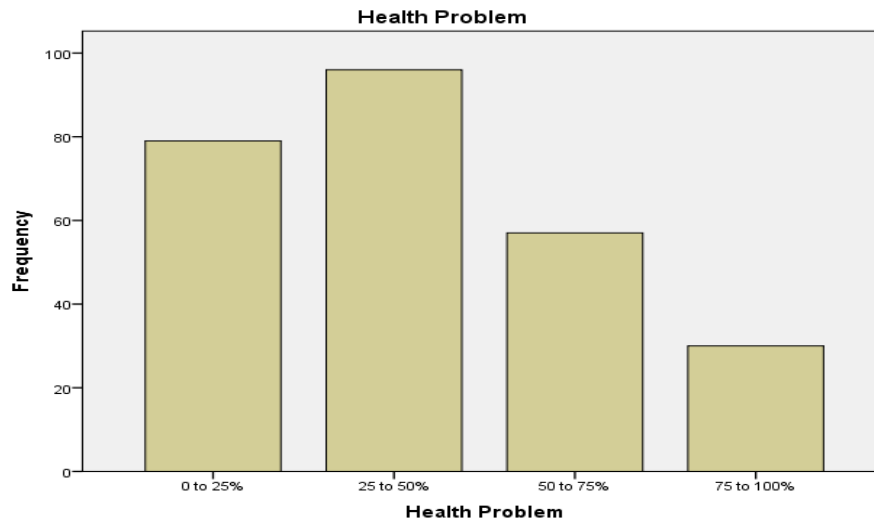
Sales is decreased from 25 to 50 percent as said by majority of 47 percent and 31 percent opined 50 to 75 percent decrease in sales due to loadshedding. As shown by Chart 9.

Decrease in Sales



Retailers health is affected 25 to 50 percent as stated by 37 percent, while 30 percent said they have ≤ 25 percent health problems due to loadshedding, Chart 10 exhibits.

Health problems



Multiple regression was calculated to identify the effects of the factors on retail business that are affected by loadshedding.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550 ^a	.303	.287	.72382

a. Predictors: (Constant), Health Problem, Product damage, Problem in customer dealing, Waste of time, Increase in cost, Decrease in sales

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.080	6	9.680	18.476	.000 ^b
	Residual	133.599	255	.524		
	Total	191.679	261			

a. Dependent Variable: Effects on business

b. Predictors: (Constant), Health Problem, Product damage, Problem in customer dealing, Waste of time, Increase in cost, Decrease in sales

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.855	.206		4.149	.000
Problem in customer dealing	.308	.062	.303	4.981	.000
Product damage	.012	.045	.015	.275	.783
Increase in cost	.126	.065	.116	1.938	.054
Waste of time	.148	.066	.131	2.232	.027
Decrease in sales	.259	.070	.239	3.696	.000
Health Problem	-.063	.053	-.072	-1.175	.241

a. Dependent Variable: Effects on business

The 'Problem in dealing customer', 'Waste of Time' and 'Decrease in sales' were found to be the main factors that affect on retail business due to loadshedding, as they have significant beta coefficient .308, .148 and .259 respectively with p value < .05. While other factors like 'increase in cost', 'product damage' and 'health problems' have insignificant effects, as having p value > .05.

CONCLUSION

Retail markets in developing countries play a significant role in employment and provision of goods to public especially in growing urban areas. But due to loadshedding they are in turmoil. The population in the study suffers from 6 to 8 hours loadshedding and it affected their business 50 percent to 75 percent. 'Problem in dealing customer', 'Waste of time' and 'Decrease in sales' were found to be the main factors that affect retail business due to loadshedding, because they have significant beta coefficients .308, .148 and .259 respectively, while other factors like 'product damage', 'increase in cost' and 'health problem' have p > .05. Hence H1, H2, H5 and H6 were accepted.

Retail Business is bread and butter for the people and also a provider of goods for consumers. For a certain livelihood, convenient loadshedding schedules may also serve as relief for the retailers. Loadshedding is predicted to end in 2018 (Ali, 2015) in spite of refutation by NEPRA (Bhatti, 2015). It is imperative to take corrective actions both by Government and public because all are ultimate beneficiaries.

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