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IMPACT OF ELECTRICITY CRISIS ON PAKISTAN TEXTILE INDUSTRY

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ABSTRACT

The objective of the study is to find out the impact of electricity crisis in textile industry of Pakistan. Textile industry of Pakistan is contributing over 60% in total export; also it is biggest manufacturing sector of the country. Electricity crisis badly affected textile industry of Pakistan due to that production of textile products decreased. Currently, electricity crisis is big issue in Pakistan. Textile industry is important industry of the country; therefore this study will identify how electricity crisis negatively affecting textile industry of Pakistan.

In research methodology, primary & secondary data used, 150 questionnaires distributed to employees working in textile industry of Pakistan, in which 140 questionnaires received. Random sampling technique used and MS Excel software utilized for data analysis. Study findings revealed that employees feel that electricity crisis reduced production, employment opportunities, wages; and companies unable to deliver order on timely manner as well as textile groups started investing in other countries.

Although textile industry of Pakistan facing difficulties due to energy crisis but situation can be reversed if government take serious measures to get control on energy crisis by providing uninterrupted energy supply.

KEYWORDS: *Energy Crisis, Textile Industry, Employees' perception.*

INTRODUCTION

Pakistani textile industry is biggest and main sector as it is generating highest earning of the country around 60 percent. Textile industry is creating approximately 39 percent employment both skilled and unskilled workers as well as it has contribution in the GDP as 8.5 percent (Ministry of Textile Industry, 2014). The production of textile includes home textile, canvas, yarn, ready-made garments, towels, cotton ginning, knitwear and hosiery.

Moreover, Pakistan industry of textile comprised of 522 units of textiles with 10 ml spindles installed capacity as well as 115,000 rotors which making this country as 3rd biggest capacity of spinning in the Asia (Faisalabad Chamber of Commerce & Industry, 2014). In Pakistan, spinning capacity is approximately 5 percent of total world and in Asia it is 7.7 percent. Despite tremendous contribution of textile industry in economy of Pakistan, dismissal performance of exports (In 2007, reduced from 64 percent to 52 percent in 2013) can be mainly due to energy shortage (Economic Survey of Pakistan, 2014). Energy crisis badly affected the textile industry of Pakistan in many ways like reduced production capacity, increased cost, unemployment increased, domestic/international orders delay etc.

Furthermore, energy crisis enforced many textile businesses to shut down their production units or move/ invest to other country. Some production units which are

export specific in energy crisis not able to deliver order on time and they converted to domestic units of production catering domestic market to meet their average fixed cost. Other than this, energy crisis delaying schedule of delivery both at inter & intra level of industry that resulted in non/ less industry competitiveness along with intense regional competition such as Bangladesh, India and China etc.

Economic Contribution of Pakistani Textile Industry	
	%
Creating Employment	38
Manufacturing	46
Exports	60

Source: Economic Survey of Pakistan, 2013

Above table is displaying information that how significant contribution of textile industry in economic growth of Pakistan and impact of energy crisis not just affecting textile industry but economic growth of Pakistan as well.

From 2001 to 2010, Textile Industry Trends	
Years	**Growth in (%)**
2001	4.10
2002	5.20
2003	20
2004	24.50
2005	11.23
2006	8.40
2007	4.05
2008	-0.70
2009	-1.78
2010	1

Source: State Bank of Pakistan, 2011

Above table is clearly showing that from 2001 to 2004 there was positive trend in growth of textile industry and from 2005 to 2010 growth declined. There are different factors which had impact on textile industry but the most significant is energy crisis. Energy considered as main element of any production process, with the time production process gone-through transition from techniques of intensive labor to intensive energy (Cleveland, 2005). In recent times, no one can imagine industrialization without energy intensive process. In fact, uninterrupted supply of energy becomes essential to run business activities smoothly.

OBJECTIVE OF THE STUDY

- To examine impact of electricity shortage/crisis on textile industry of Pakistan.
- To find out employees' perception on electricity crisis.
- To investigate how electricity crisis can resolve in future.

LITERATURE REVIEW

Pakistan Textile Journal (2013) reported that Pakistan position among top ten exporters of textile in the world. World's textile export is more than US$ 400 billion in which China is leading with presenting US$ 56 billion exports (Economic Survey of Pakistan, 2013). Other countries like Hong Kong export is around US$ 39 billion, Korea US$ 36 billion and Pakistan, Indonesia, Bangladesh and India US$ 12 billion each (Economic Survey of Pakistan, 2013).

Shibata (2011) conducted survey on relation between energy crisis & economy growth, findings revealed that electricity cost increasing because of rise in oil prices. Sorensen (2008) conducted survey on how to store energy; he discussed that coal, oil and wood recognized as bases for energy storage and production purpose. Further, he highlighted that energy demand increase with the time because of energy demand for production activities. In order to fulfill energy demand and avoid energy crisis, energy storage can provide positive signal which reduce or eliminate energy crisis.

There are number of factors associated with electricity crisis some significant factors include Cost increased; Reduction in productivity; Unemployment increased; Order delayed (Domestic/International). There are also some reasons why electricity crisis stretched so long because of political instability, high interest and inflation rates etc (Siddiqi, Jalil, Khalid, 2011). APTMA (All Pakistan Textile Mills Association, 2014) stated that consequence of electricity crisis affected different sub-sectors of capacity of textile production and decreased to nearly 30%.

In any type of industrial activities electricity is highly important but in Pakistan it's not delivering to textile industry as to their requirement because of scared resources. According to Ahmad and Aliya (2012) Pakistani textile industry consumes approximately 35% of electricity in spinning, 39% in chemical processing, 6% for miscellaneous reasons and 24% in weaving. Khan and Khan (2013) discussed that although textile industry of Pakistan was expanding since the country got independence from British till 2005 than contracting. They also identified reasons or factors which contributed significantly to contraction of Pakistani textile industry.

- Rise in oil price
- Electricity load shedding
- Political instability
- Lack of research and development in new technologies
- Rise in raw material price
- Rise in salaries/wages

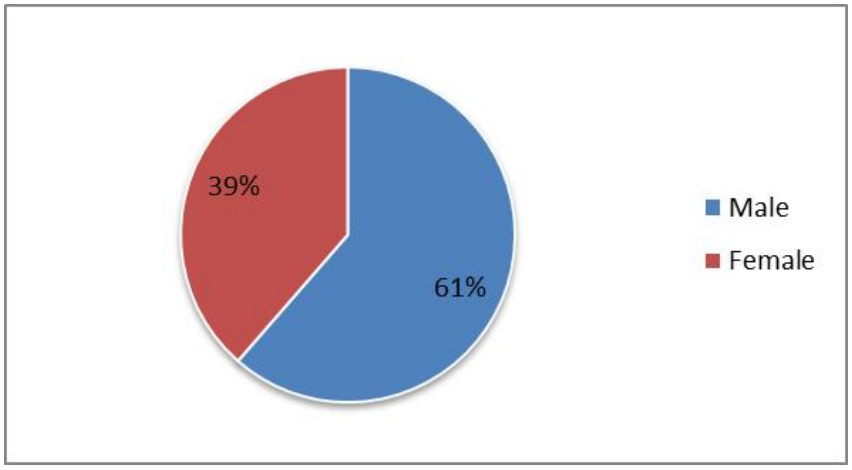
RESEARCH METHODOLOGY

To achieve objective of the study; it is important to collect data which can be gathered through primary or secondary data. For this study both primary and secondary data has used like primary data collected through using questionnaire technique and secondary data collected by journals, newspapers, government official websites etc. Random sampling technique used, which refer to collecting data randomly. Ten questions designed and distributed to 150 people working in textile industry of Pakistan, in which 140 questionnaires collected. The sample size of the study consists of 150 people. Moreover, data analyzed in MS Excel software and showed by different charts. Further the data interpreted in text form as well.

DATA ANALYSIS

Q1: Gender

Male	86 (61%)
Female	54 (39%)
Total	140

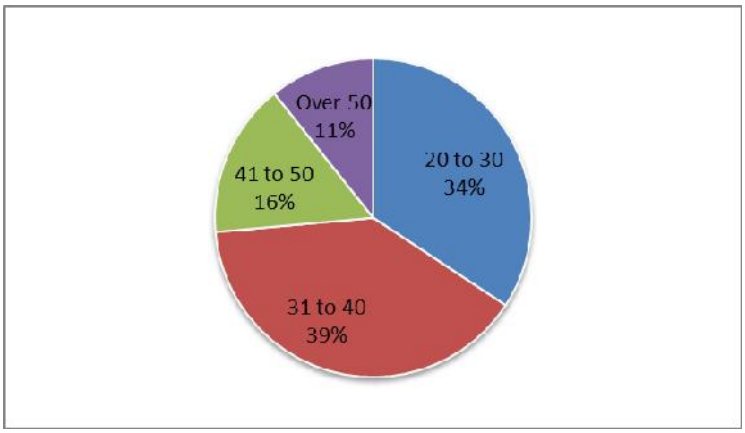


Source: Field Survey 2014

Above data is indicating that 61% male and 39% female participated in this study, also showing that both male and female are working in textile sector of Pakistan.

Q2: Age

Respondents' Age	No. of Respondents
20 to 30 years	48 (34%)
31 to 40 years	55 (39%)
41 to 50 years	22 (41%)
Over 50 years	15 (11%)
Total	140

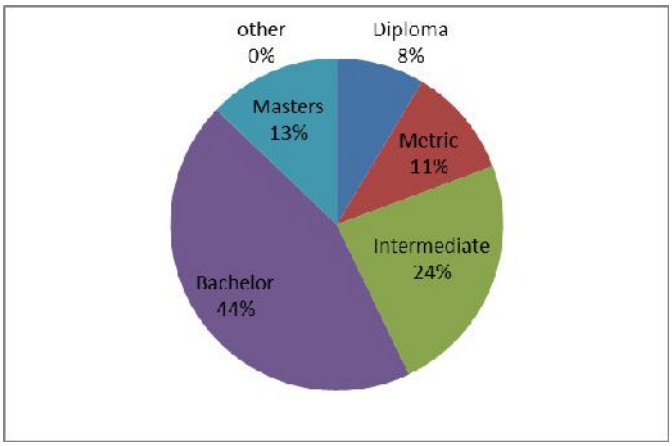


Source: Field Survey 2014

Question two provides data that is showing different age group of people working in textile industry of Pakistan but higher numbers of employees (55 respondents) are in the age bracket of 31 to 40 years (39%). However, other employees 34% in the age between 20 to 30 years, 16% between 41 to 50 and 11% more than 50 years of age.

Q3: Educational Level of Employees

Education	No. of Respondents
Diploma	12 (8%)
Metric	15 (11%)
Intermediate	33 (24%)
Bachelor	62 (44%)
Masters	18 (13%)
other	0
Total	140

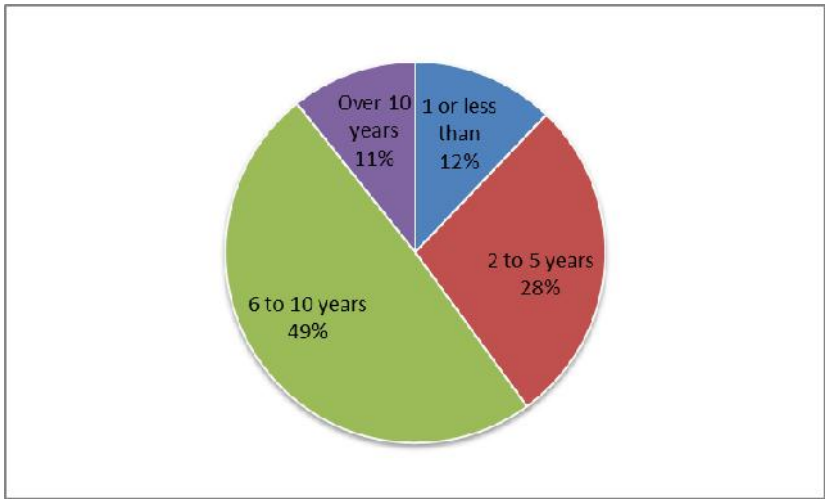


Source: Field Survey 2014

Data showing that 8% respondents holding diploma, 11% metric certificate, 24% intermediate, 44% are bachelor degree holders and 13% are Masters. Overall it is indicating that most employees are graduate working in textile sector of Pakistan.

Q4: Duration of Employment

Employment Duration	No. of Respondents
1 or less than	17 (12%)
2 to 5 years	39 (28%)
6 to 10 years	69 (49%)
Over 10 years	15 (11%)
Total	140

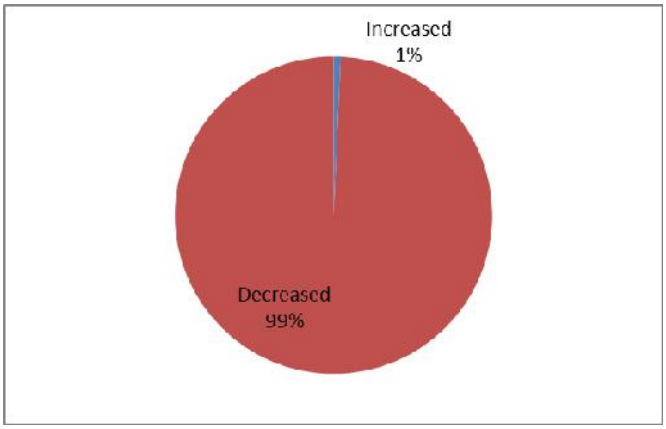


Source: Field Survey 2014

49% employees are working in Pakistani textile industry for 6 to 10 years (69 respondents), 12% (16 respondents) working one or less than, 28% for 2 to 5 years while 11% (16 respondents) are more than 10 years. Moreover, data indicated that there is less percentage of people like 12% which are working one or less than that the reason could be due to electricity crisis as it decreased production, so employer are enforced to not hire new employees.

Q5: What do you think electricity crisis increased or decreased production level of textile products?

Options	No. of Respondents
Increased	1
Decreased	139

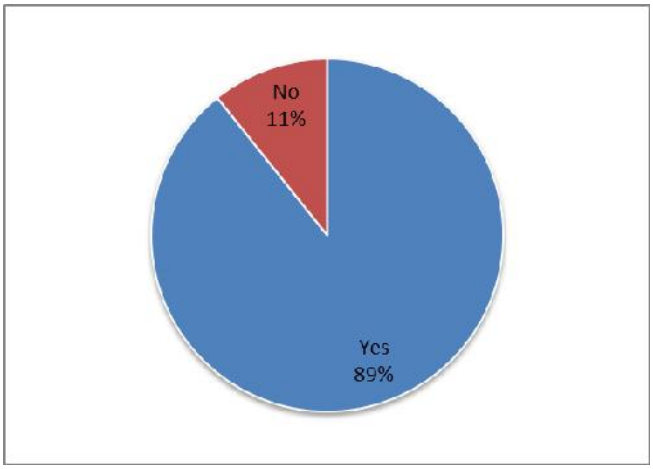


Source: Field Survey 2014

Data revealed that 99% of respondents believe that electricity crisis decreased production level of textile goods. There are machines required in manufacturing process which run through electricity and if there is crisis of electricity than production will definitely decrease, so same happen in the case of Pakistan Textile Industry.

Q6: Do you think electricity crisis has badly affected the textile industry of Pakistan?

Options	No. of Respondents
Yes	140 (100%)
No	0
Total	140

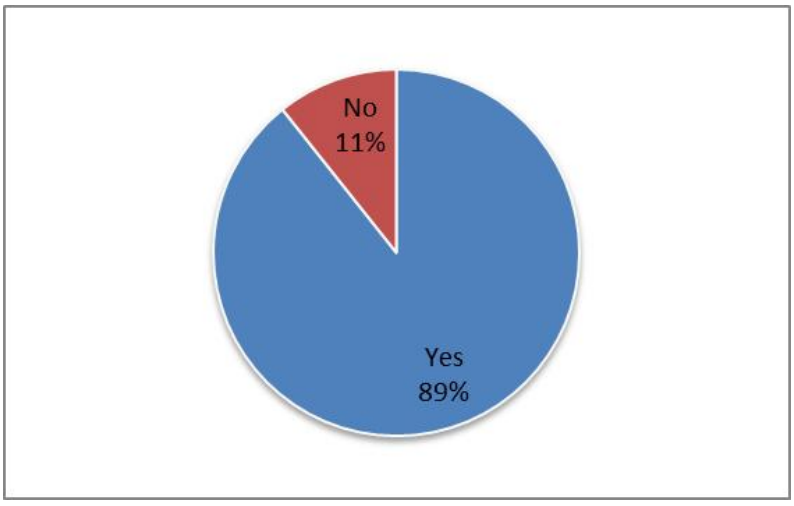


Source: Field Survey 2014

Interestingly all respondents of 140 (100%) feel that electricity crisis has negative impact on Pakistani textile industry. It means that all respondents are aware of negative impact of electricity crisis on textile business of Pakistan.

Q7: Do you think that electricity crisis reduced job opportunities in Pakistani textile industry?

Options	No. of Respondents
Yes	125 (89%)
No	15 (11%)
Total	140

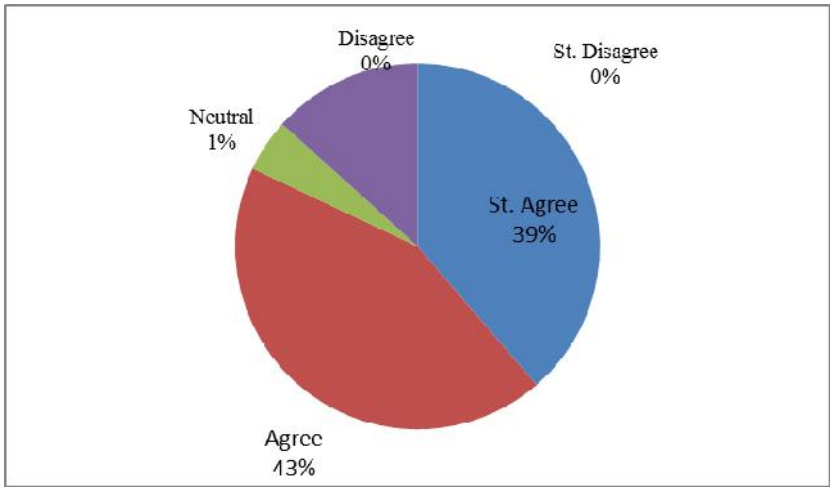


Source: Field Survey 2014

Above data endorsing question number five as 125 respondents (89%) feel that because of electricity crisis job opportunities decreased. It is quite obvious when business operations going smoothly and deliver orders on timely manner than companies create job opportunities. In Pakistan, textile companies are unable to perform their business activities as required so job creation opportunities reduced.

Q8: Do you think that electricity crisis affected people working on wages?

Options	Number of Respondents
St. Agree	133 (95%)
Agree	5 (4%)
Neutral	2 (1%)
Disagree	0
St. Disagree	0
Total	140

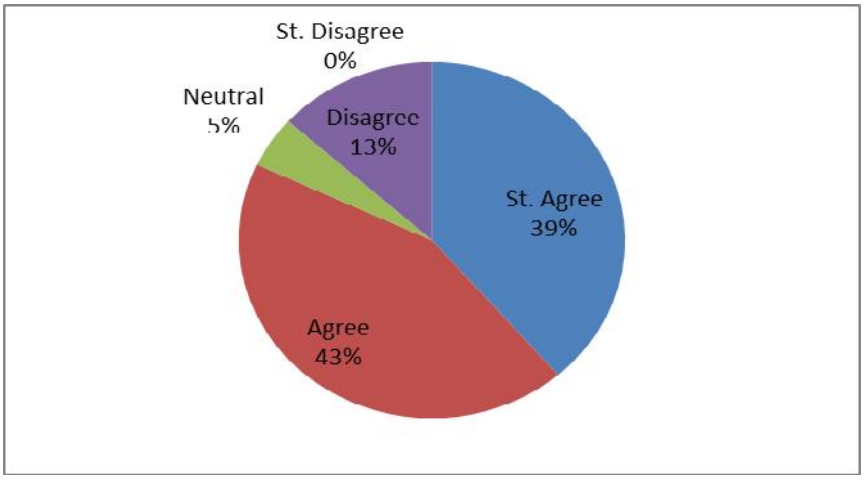


Source: Field Survey 2014

Data revealed that 95% of respondents are strongly agree that people are working on wages in textile sector are badly affected due to electricity crisis, 4% are agree with this while 1% given neutral view it means they are neither agree nor disagree. Furthermore, not a single respondent selected disagree, due to shortage of electricity it is understandable that when machines not operating than wages workers must be affecting.

Q9: Do you think that intense load shading of electricity enforced textile companies to pack-up their business in Pakistan and invest in other countries?

Options	Number of Respondents
St. Agree	58 (39%)
Agree	65 (43%)
Neutral	7 (5%)
Disagree	20 (13%)
St. Disagree	0%
Total	140



Source: Field Survey 2014

In past years; it is observed that due to electricity crisis many textile companies moved to other countries, to further verify this asked to respondents on this statement. 39% strongly agree with the statement that companies are moving to other countries and reason is shortage of electricity. 43% feel are also agree, 5 % showed neutral response, 13% are disagree with that and nobody is strongly disagree that textile companies are not moving to other countries. Overall it seems that textile companies were moving to other countries like Bangladesh, India and China (The News, 2014).

Q10: Do you have any suggestion how to get rid of electricity crisis and save the textile industry of Pakistan?

Majority of respondents suggested that government should produce electricity from Hydropower and Coil. Moreover, they indicated that there is high need of building Dams as Pakistan is losing billions of Dollars

water, by saving the water electricity companies will be in a better position to produce cheap and quick electricity. In addition, producing electricity through petroleum product is expensive and country like Pakistan cannot afford in a long run.

FINDINGS

1. Findings revealed that both male and female participated in this research but more male 61% took part in this.
2. Mostly employees are in the age between 31 to 40 years, it means companies keen to retain employees which have experience as age grows usually learning of employees improve.
3. 8% respondents have diploma, 11% done matriculation, 24% intermediate, 44% bachelor and 13% Master degree holder.
4. 49% of respondents' employment duration is between 6 to 10 years. Again it is indicating that mature and experienced employees are working in the Pakistani textile industry.
5. 99% of employees feel that electricity crisis reduced production level of textile goods. As textile industry is contributing more than 60%
6. All respondents believe that electricity negatively affected the textile industry of Pakistan.
7. 89% of respondents believe that job opportunities reduced in textile sector due to electricity crisis. In 2013, because of electricity crisis over $1 billion export orders diverted from Pakistan (Ahmad, 2014). Pakistan is losing export orders of textile products due to electricity crisis, so in this kind of business environment companies want to control their cost and avoiding creating job opportunities.
8. 95% respondents strongly agreed that people working on wages affecting badly, to operate machines need electricity and if there is shortage of that than work will stop and wages workers suffers.
9. In question 9, Likert Scale provided data about intensity of respondents such as 39 percent strongly agree with the statement that companies are moving to other countries and reason is shortage of electricity. 43 percent feel are also agree, 5 percent showed neutral response, 13 percent are disagree with that and nobody is strongly disagree that textile companies are not moving to other countries.
10. Last question was open ended, where respondent can give their opinion in their own words.

Majority of employees working in textile industry of Pakistan feel that currently electricity is expensive because it makes through petroleum product and if government shift to coil and hydropower can reduce the duration of load shading. Moreover, making electricity with coil and water is much cheaper than petroleum products.

RECOMMENDATIONS

As discussed in earlier part that Pakistan textile industry is playing significant role in the economy of the country. Shortage of electricity badly affected all size of businesses including textile industry. Therefore, it is recommended that government of Pakistan should take serious measures such as build water Dams, work on coil and produce electricity from solar energy (Wind Energy). There are thousands of people which are working on daily wages due to increase in production cost, textile industry owner down size employees. Pakistan is a country which is rich is all kind of resource only needs to discover resources and put in operational energy activities.

CONCLUSION

It is concluded that electricity crisis in Pakistan badly affecting textile industry of the country. Due to electricity crisis employees working in textile industry of Pakistan feel that production is reduced, more people are jobless, employment opportunities reduced, wages reduced and companies are not able to deliver order on time. Furthermore, textile companies moving to other countries where production and labor cost is cheaper. Despite, unfavorable condition for textile industry there is always room for improvement. If government of Pakistan should more focus on solar energy, coil resources and hydro power electricity than they will not just able to control load shading but also willing to offer cheap electricity.

REFERENCES

1. *Ahmad, M., 2014. Electricity crisis diverted $1billion export orders from Pakistan. The News.*
2. *Ahmad, L. and Aliya, G (2012) Textile Industry of Pakistan Badly Affecting by Electricity Crisis. Research Journal of International Studies, Vol 14, pp 3-7.*
3. *Alam, S (2011) Factors Affecting Textile Industry of Pakistan. Pakistan Textile Journal.*
4. *APTMA (2014) Electricity Crisis Challenges for Pakistan. All Pakistan Textile Mills Association (APTMA) Annual Report.*
5. *Cleveland, R (2010) Electricity Crisis Impact on Pakistan's Textile Industry. Textile Journal of Pakistan.*

6. *Economic Survey of Pakistan (2014) Electricity Crisis in Pakistan. Evidence from Faisalabad.*
7. *Khan, H.K. and Khan, L (2013) New Challenges for Pakistan's Textile Industry. Information Management & Business Review, 3(6), pp. 19-25.*
8. *Ministry of Textile Industry (2014) Economic Survey of Pakistan. Special Report on Textile Industry.*
9. *FCCI (Faisalabad Chamber of Commerce & Industry, 2014). Pakistani Textile Industry and Electricity Crisis. Online www.fcci.org.pk. [Cited on 19 August, 2015].*
10. *Shibata, A. (2011) Energy Crisis of Pakistan Reducing Productivity of Textile Industry. Journal of Middle Eastern Finance & Economics.*
11. *Sorensen, M.T. (2008) Pakistan's Textile Industry Performance. The Review of Pakistan Development.*
12. *Siddiqi, G., Jalil, N., Khalid, H. (2011) Economic and Electricity Crisis of Pakistan. PIDE Working Paper 62.*

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