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THE IMPACT OF PUBLIC POLICY IN PROMOTING INNOVATION AND GROWTH IN INDIAN ELECTRONIC HARDWARE INDUSTRY

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Article Info

Keywords: Government public Policy, Hardware and electronic sector, Innovation and growth schemes

Abstract

The government of India has enacted a number of policies concerning hardware and electronics. As part of a new National Policy on Electronics, the Ministry of Electronics and Information Technology has suggested a "credit guarantee fund" (CGF) and a "interest subvention scheme" (ISS) to support the electronics manufacturing ecosystem. The study's primary objective is to examine how government initiatives in India's electronic and hardware industries have contributed to their development and innovation. The purpose of this study is to apply the frequency distribution and ANOVA test in order to examine the effect of government policies on India's electronic and hardware industry. This study looks at how government program have helped the electronics and hardware industries in India develop and advance. A total of 400 employees at two of India's leading electrical hardware companies were surveyed. Companies like Epos India Pvt. Ltd. and Globe capacitor Ltd. would be in charge of compiling statistics from the Indian electric hardware market. Information about government regulation of electronics and hardware was collected via questionnaire. The result of the study reveals that there is a impact of Public Policy in Promoting Innovation and Growth in Indian Electronic Hardware Industry.

Introduction

Over the past 50 years, only the electronics industry has grown rapidly in every country. This applies everywhere. Manufacturing electronics is predicted to reach $67.3 billion in 2020-21, up from $37.1 billion in 2015-16. In 2020-21, Covid-19 slowed development, reducing production by $67.3 billion. The new plan may subsidies interest rates on loans up to one billion rupees and guarantee term loans up to 100 and fifty crore rupees for electronic businesses. The Ministry of Electronics and Information Technology has proposed a "credit guarantee fund" (CGF) and a "interest subvention scheme" (ISS) to boost the electronics manufacturing ecosystem as part of a new National Policy on Electronics. A credit guarantee is being explored for term loans for projects with a

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maximum borrowing unit of 100 crore rupees. When this is done, establishing a new electronics manufacturing unit or significantly expanding an existing one does not require collateral security or a third-party guarantee. The sector pays 11-12 percent interest on term loans in India, but 5-7 percent elsewhere. The current plan provides 10-year term loans for equipment and machinery up to Rs 1,000 crore per borrowing unit for building or expanding an electronics manufacturing plant. Startups, entrepreneurs, and SMBs might start without collateral with the credit default guarantee system. The government wants the electronics industry to become foreign exchange positive by 2022, export $300 billion by 2027, and create 3 million direct employment and 6 million indirect jobs by 2027. To encourage indigenous production, the Central Government should provide 25% Credit Default Guarantee on imports.

Literature Review

According to Shukla (2020), India's foreign exchange revenues come from the electronics and hardware industries. Software, IT services, and IT-enabled services exports drive this (ITeS).

According to Shatri (2020), the new competitive landscape, fueled by the technological revolution and significant globalisation, was trending toward hyper competition (rapidly escalating competition and corporate strategy manoeuvring), extreme emphases on price, quality, and customer satisfaction, and an increasing focus on innovation (both in terms of technology and new products and services).

Singh et al.(2018) found that established Indian enterprises are becoming increasingly capable of handling larger, more complicated, and higher-value projects.These companies may promote sector growth. They also see new entrepreneurs launching innovative products.

Singh, Kumar, Gupta & Madaan (2018) suggest that the government's long-term commitment to national innovation systems may explain India's performance. Establishing a system of higher education in technical and engineering disciplines, developing an institutional infrastructure for science and technology policy formulation and implementation, building centres of excellence, and a multitude of other institutions dedicated to technology advancement all require funding. Investments in publicly sponsored research and development organisations and support for their projects through computer facilities and data transport and networking infrastructure help build technical capabilities. Based on the above disucssion the research study is conducted with the below mentioned aims and objectives.

Research Aim and objectives

To analyze Impact of Public Policy in Promoting Innovation and Growth in Indian Electronic Hardware Industry

Research Question

Does the Public Policy has significant impact on Promoting Innovation and Growth in Indian Electronic Hardware Industry?

Research Hypothesis

H0: There is no significant impact ofPublic Policy in Promoting Innovation and Growth in Indian Electronic Hardware Industry.

H1: There is a significant impact ofPublic Policy in Promoting Innovation and Growth in Indian Electronic Hardware Industry.

Research Method and Material

Research Design

Research designs guide problem-solving. From problem identification to report preparation and presentation, research projects follow a pattern. Research design is this method. This is descriptive research. The study

approach establishes a reasonable research plan. This descriptive study examines government policy's impact on India's electronics and hardware businesses. ***Sample size***

The sample is designed to reflect the population. Time, money, and access determine the researcher's sample strategy. This study examines how public policy affects India's electronic and hardware sector's growth and innovation. Thus, India's electronic and hardware sector's development and innovation have been analysed using random sampling. This study involves 400 people. This research will include workers of two of India's leading electrical hardware businesses. Epos India Pvt Ltd and Globe capacitor Ltd will gather Indian electric hardware industry data.

Data Analysis

This study used frequency distribution and ANOVA to analyze and interpret data. This study examined how government policy affects growth and innovation in India's electronic and hardware sector using ANOVA. The questionnaire tool generates results. Quantitative analysis employing graphs, charts, and tables yielded results.

Results and Discussion

Question 1 Government polices helpful in the production and manufacturing department in the electronic and hardware sector

Table 1.1

Do you agree that Government polices helpful in the production and manufacturing department in the electronic and hardware sector ?	Frequency
Strongly agree	280
Agree	100
Disagree	10
Strongly disagree	10

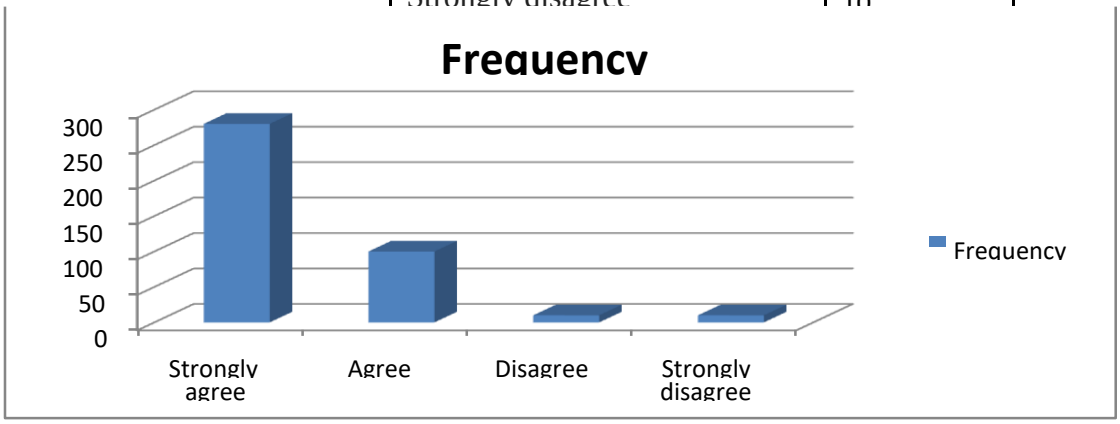

Figure 1: Government policy effects

The frequency analysis data in the table and graph above shows that government regulations benefit electronic and hardware production and manufacturing divisions. 280 of 400 polled workers strongly agreed that government measures benefit electronic and hardware production and manufacturing.However, 100 participants felt government controls were helpful in electrical and hardware manufacturing. Ten individuals disagreed that government regulations help production and manufacturing in the electronic and hardware business. Thus, public policy helps the Indian electronics hardware business innovate and expand to compete globally.

Question 2 government policies and schemes impact the innovative growth and innovation in the electronic and hardware sector in India

Table 1.2

Do you agree that government policies and schemes impact the innovative growth and innovation in the electronic and hardware sector in India	Frequency
Strongly agree	290
Agree	50
Disagree	30
Strongly disagree	30

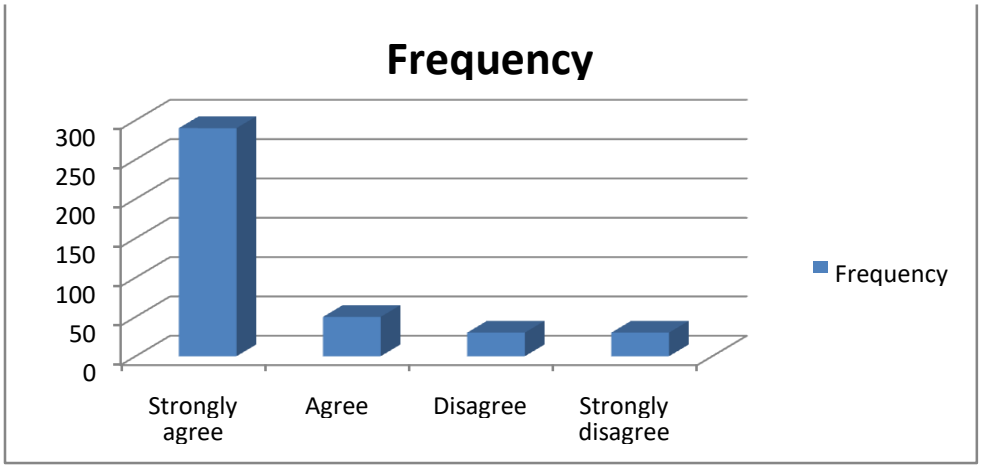

Figure 2: Government policy impacts on innovation

Interpretation and analysis: : As shown in the table and graph, most poll respondents agree that government policies and programmes affect India's electronic and hardware industry's growth and innovation. 290 of 400 participants believed that government policies and activities impact growth and innovation in the Indian electronic and hardware sector. However, just 30 people disagreed. Analysis showed that government programmes and support have helped the electronic and hardware industry innovate and flourish. Thus, government policies and programmes affect electronic and hardware industry growth and innovation. The computer hardware business developed smaller, more advanced microchips to take advantage of technological advances like smaller gadgets. This enabled the industry to make smaller gadgets.

Question 3: There is a significant impact of public policies and schemes in promoting growth and innovation in the electronic and hardware sector in India

Model	R	R Square		Adjusted R square		Std. Error of the estimate	
1	0.752a	0.565			F	74.794	
ANOVA		Sum of square		0.559		Sig.	
			df	Mean			
	Regression	7322.606		Square	120.518	0.00b	
	Residual	5650.592	1	7322.607		T	
	Total	12973.100	92	60.758			

Coefficients		Unstandardized B	95 Coefficient Std. Error		Standardized Coefficients Beta		Sig
		34.377 0.003	3.095 0.01		0.750	11.107 10.977	0.004 0.004

This study effort examined how government policies moderate growth and innovation in India's electronic and hardware industry based on ANOVA results. Test results were below 0.05. The significant value was discovered to be 0.004, and as a consequence, it is feasible to assess that there is a large effect of public policy in fostering growth and innovation in the electronic and hardware business in India. 4G/LTE networks, the Internet of Things (IoT), Digital India, Smart Cities, greater broadband connection, and e-governance programs would improve India's electronic components business. India's electrical components industry will flourish.The following discussion and results support the hypothesis that public policies and schemeshas their impact on innovation and growth in the Indian electronic and hardware sector.

Conclusion

The data in the above table and graph indicate that many poll takers (by percentage) think that government policy is beneficial to the hardware and electronics manufacturing sector. Statistically, the value is too low to warrant further investigation (p0.05). With a substantial value of 0.004, it is reasonable to draw conclusions about the impact of government policy on the development and modernization of India's electronic and hardware sectors. Businesses in India's hardware and electronics sector saw huge increases in output and manufacturing with the help of government programs, as a consequence. Public access to the nation's policy on electronics was established. It is hoped that by following this plan, a local manufacturing ecosystem may be established for the mass production and sale of electronic products. Given the rapid growth of the electronics industry throughout the world, the proposed strategy intended to make India a centre for the development and manufacture of such technologies. This is due to the fact that India has become the world leader in the electronics industry. What has been discussed and discovered so far leads one to the conclusion that public policy plays a significant influence in the electrical and hardware sector of the Indian economy. To improve the electronics manufacturing environment in the country, a new National Policy on Electronics is now being written.

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