



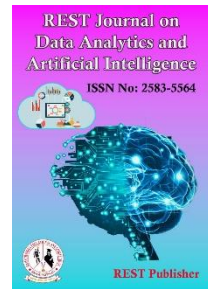
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# "The Jio Effect: Evaluating the Impact of Jio on Internet Usage and Digital Transformation"

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**Abstract.** *The study examines the socio-economic implications of Jio's impact on internet usage. It investigates the role of digital inclusion in empowering previously underserved communities and bridging the digital divide. The research explores the changes in access to information, communication patterns, and economic opportunities for individuals and businesses. This research explores the impact of Jio on digital content consumption, including streaming services, e-commerce, social media, and online education. It examines the shifts in consumer preferences, market dynamics, and the emergence of new business models as a result of increased internet accessibility and affordability brought about by Jio. Disruptive Market Entry: Jio's entry into the Indian telecommunications market brought about a paradigm shift by offering affordable data plans and high-speed internet connectivity. Understanding the impact of this disruptive strategy is crucial in comprehending the dynamics of the telecom industry and its influence on internet usage. Jio's affordable data plans and extensive network coverage played a vital role in bridging the digital divide in India. Examining the impact of Jio on internet usage helps evaluate the extent to which previously underserved populations gained access to digital resources and the resulting socio-economic implications. The study of Jio's impact on internet usage provides insights into changes in user behavior, including internet penetration rates, usage frequency, and types of online activities. Understanding these shifts helps businesses and policymakers adapt their strategies to cater to evolving consumer preferences. SPSS (stands for Statistical Package for the Social Sciences) SPSS offers a user-friendly interface that allows users to perform various tasks without extensive programming knowledge. It provides a wide range of statistical procedures and techniques, making it suitable for both basic and advanced data analysis. These procedures include descriptive statistics, inferential statistics, regression analysis, factor analysis, cluster analysis, and many more. Moreover, SPSS offers a syntax language, known as the SPSS command language, which allows users to automate repetitive tasks and perform advanced analyses. This feature enhances reproducibility and allows for more complex data manipulations and statistical modeling. Rate your internet usage per day 2. After jio entered market did it increased your internet usage (if yes how much as compared to before) 3. Are you satisfied with increase internet usage 4. Rate your internet accessibility after jio entered market 5. Do you wish to reduce internet usage 6. Increase in internet usage has impacted my life. The overall Cronbach's Alpha value for the model is .531. It Shows the Reliability Statistic individual parameter.*

**Keywords:** *Internet usage, Affordable internet, Urban connectivity, Internet adoption, Customer acquisition, Negative impact*

## 1. INTRODUCTION

The emergence of Jio, a prominent telecommunications giant in India, has had a monumental influence on internet usage, leading to significant changes in how people connect, access, and affords online services. Since its inception in 2016, Jio has completely transformed the digital landscape, bringing about revolutionary shifts in the lives of millions throughout the nation. This introduction seeks to explore the profound impacts of Jio on internet usage, with a focus on its contribution to bridging the digital divide, transforming the affordability of data, empowering individuals, fostering digital entertainment, driving e-commerce and digital payments, and accelerating the penetration of internet services. Jio's entry into the market heralded a monumental change in connectivity, narrowing the gap that had long separated remote and underserved regions from digital access. Through the extensive deployment of a robust 4G network infrastructure, Jio effectively provided previously inaccessible areas with high-speed internet access. This newfound connectivity empowered individuals, communities, and businesses to

engage in a myriad of online activities, access valuable digital resources, and fully harness the vast potential of the internet. One of the noteworthy contributions of Jio lies in its disruptive pricing strategies, which introduced an era of affordable data plans. By challenging industry norms and offering data at remarkably low costs, Jio made internet access accessible to the masses. This affordability revolutionized how people used the internet, attracting a significant influx of new users to explore digital platforms and engage in diverse online experiences. Jio's disruptive pricing model sparked a surge in data consumption, empowering individuals to maximize digital opportunities. Furthermore, Jio played a crucial role in digital empowerment. Through its affordable data plans, Jio enabled millions of individuals to embark on their digital journeys, granting them access to vital information, educational resources, healthcare services, and government initiatives. The increased internet usage facilitated digital literacy, the acquisition of new skills, and contributed to overall societal progress. Jio empowered individuals to bridge socio-economic gaps, opening doors to wider opportunities and socio-economic mobility. Additionally, Jio spearheaded a revolution in digital entertainment, transforming the way Indians consumed media and entertainment. By offering a diverse range of multimedia and streaming services like JioTV, JioCinema, and JioSaavn, Jio provided users with a broad selection of digital content. Combined with affordable data plans, this led to a surge in online video streaming, digital gaming, and content creation, offering users immersive entertainment experiences and reshaping the digital entertainment ecosystem. Moreover, Jio played a critical role in driving the growth of e-commerce and digital payments in India. With its extensive user base, Jio acted as a catalyst for the exponential expansion of online shopping, enabling small businesses and entrepreneurs to tap into the digital marketplace. Additionally, Jio's integration of its own payment platform, JioMoney, and collaborations with leading digital payment providers accelerated the adoption of cashless transactions. This transformation in the payment landscape contributed to the digitization of financial services, fostering a more inclusive and efficient digital economy. In conclusion, Jio's impact on internet usage in India has been profound, revolutionizing how people connect, access, and afford online services. Through bridging the digital divide, revolutionizing data affordability, empowering individuals, fostering digital entertainment, propelling e-commerce, and accelerating internet penetration, Jio has played a pivotal role in shaping the digital landscape of the country. Its disruptive innovations and strategies have propelled India into a new era of digital connectivity, opening up immense possibilities for societal growth, economic development, and technological advancement. This thesis examines the correlation between the affordability of mobile internet and internet connectivity for women in India. The digital gender gap, which refers to the disparity in internet and mobile phone access between genders, is an important indicator of development. The main question addressed is whether affordability is the primary barrier that women face in adopting mobile internet. Answering this question presents challenges, including the availability of gender-disaggregated data and finding a suitable context to isolate the impact of affordability from other potential obstacles. To overcome these challenges, this thesis combines data on monthly wireless subscribers with national survey data. It also takes into account state-level economic indicators such as the Human Development Index, Gender Development Index, and Gender Inequality Index to analyze the relationship between low-cost mobile internet and the digital gender gap. As expected, various factors influence the digital gender gap, including standard of living, education, income, and safety and security. The findings suggest that the wider availability of affordable internet, facilitated by the low-cost provider Jio, is helping to narrow the digital gender gap. This effect is particularly significant in states with higher Human Development Index and among rural subscribers. By shedding light on the relationship between mobile internet affordability and the digital gender gap, this thesis contributes to our understanding of women's access to the internet in India. It emphasizes the role of affordable internet services, especially in states with higher levels of development, in reducing the gender disparity in digital connectivity.

## **2. SPSS (STANDS FOR STATISTICAL PACKAGE FOR THE SOCIAL SCIENCES)**

SPSS, which stands for Statistical Package for the Social Sciences, is a highly renowned and extensively utilized software program in the realm of social sciences and data analysis. Developed by IBM, SPSS offers a comprehensive and powerful toolkit to researchers, analysts, and statisticians, enabling them to conduct statistical analysis, manage data, and visualize information effectively. The key strength of SPSS lies in its ability to handle a wide array of data types and facilitate seamless data analysis. Researchers can effortlessly import and manipulate data from various sources, including spreadsheets, databases, and other statistical formats. The software boasts a user-friendly interface that simplifies the process of data management, allowing users to efficiently clean, recode, and transform data. SPSS encompasses a vast range of statistical procedures and techniques that cater to diverse analytical needs. It empowers users to perform basic descriptive statistics, such as calculating means, medians, and standard deviations, as well as more advanced analyses, including hypothesis testing, regression analysis, factor analysis, and cluster analysis. These analytical capabilities make SPSS a versatile tool for exploring relationships, identifying patterns, and deriving insights from data. Additionally, SPSS offers an extensive selection

of visualization options, including charts, graphs, and plots, which greatly assist in data interpretation and presentation. These visualizations enable researchers to effectively communicate their findings, making complex information more accessible and comprehensible to a wider audience. One noteworthy feature of SPSS is its support for a programming language called Syntax. By utilizing Syntax, users can automate tasks, replicate analyses, and customize procedures, thereby enhancing the efficiency and reproducibility of data analysis. This feature proves particularly valuable when working with large datasets or complex research projects, allowing users to streamline their workflows and ensure consistency in their analytical processes. Moreover, SPSS provides a comprehensive set of tools for data exploration and data mining. Researchers can perform data screening, identify outliers, and detect missing values. Additionally, SPSS offers capabilities for sampling, data weighting, and complex survey analysis, enabling researchers to account for various sampling designs and address potential biases in their analyses. Furthermore, SPSS extends its functionality through seamless integration with other statistical and data analysis software packages. The software allows users to import and export data in various formats, collaborate with colleagues using different software platforms, and integrate their analyses with other tools and techniques, enhancing the versatility and compatibility of SPSS. In terms of support and resources, SPSS offers extensive documentation, tutorials, and online forums where users can seek assistance, exchange knowledge, and find solutions to their analytical challenges. These resources ensure that users can maximize their proficiency in utilizing SPSS to its fullest potential, enabling them to derive meaningful insights from their data and contribute to advancements in the field of social sciences and beyond. In conclusion, SPSS is a widely embraced software program that empowers researchers, analysts, and statisticians in the social sciences to explore, analyze, and interpret data effectively. With its user-friendly interface, extensive analytical capabilities, data management tools, visualization options, and integration capabilities, SPSS serves as a valuable asset in research and data analysis. By providing a comprehensive set of features and support resources, SPSS enables users to derive meaningful insights from their data, contributing to advancements in the field of social sciences and beyond.

### 3. MATERIALS AND METHODS

1. Internet usage: Internet usage refers to the extent to which individuals, communities, and societies utilize the internet for various purposes, including communication, information access, entertainment, and commerce
2. Affordable internet: Affordable internet refers to the availability of internet services at a reasonable cost, making it accessible to a broader population. The affordability of internet services plays a crucial role in bridging the digital divide and enabling widespread internet adoption.
3. Urban connectivity: Urban connectivity refers to the level of connectivity and access to various communication and information technologies in urban areas. It encompasses the availability and quality of internet services, mobile networks,
4. Internet adoption: Internet adoption refers to the process of individuals and communities integrating the use of the internet into their daily lives. It involves the acquisition of internet access, the development of digital skills, and the utilization of online services and platforms for various purposes.
5. Customer acquisition: Customer acquisition refers to the process of attracting and gaining new customers for a business or organization. It involves various marketing and sales strategies aimed at identifying potential customers, engaging with them, and ultimately converting them into paying customers.
6. Negative impact of Internet: Excessive internet usage can lead to addiction and dependence, especially in relation to activities such as online gaming, social media, and video streaming. This can result in individuals neglecting their personal relationships, academic or professional responsibilities, and overall well-being.

## 4. RESULTS AND DISCUSSION

**TABLE 1.** Descriptive Statistics

Descriptive Statistics													
	N	Range	Mini- mum	Maxi- mum	Sum	Mean		Std. Devia- tion	Vari- ance	Skewness		Kurtosis	
	Statistic	Statis- tic	Statistic	Statistic	Statistic	Statistic	Std. Er- ror	Statistic	Statistic	Statistic	Std. Er- ror	Statistic	Std. Er- ror
Rate your internet usage per day	100	4	1	5	380	3.80	.103	1.035	1.071	-.927	.241	.546	.478
After jio entered market did it increased your internet usage (if yes how much as compared to before)	99	3	2	5	391	3.95	.084	.838	.702	-.436	.243	-.383	.481
Are you satisfied with increase internet usage	99	5	0	5	346	3.49	.119	1.181	1.395	-.746	.243	.092	.481
Rate your internet accessibility after jio entered market	98	4	1	5	377	3.85	.098	.967	.935	-.384	.244	-.536	.483
Do you wish to reduce internet usage	99	4	1	5	367	3.71	.103	1.023	1.046	-.608	.243	-.037	.481
Increase in internet usage has impacted my life	99	4	1	5	376	3.80	.110	1.097	1.204	-.676	.243	-.311	.481
Valid N (listwise)	94												

Table 1 shows the descriptive statistics values for analysis N, range, minimum, maximum, mean, standard deviation Future of Rate your internet usage per day, After jio entered market did it increased your internet usage (if yes how much as compared to before), Are you satisfied with increase internet usage, Rate your internet accessibility after jio entered market, Do you wish to reduce internet usage ,Increase in internet usage has impacted my life

**TABLE 2 .** Frequency statics

		Rate your internet usage per day	After jio entered market did it increased your internet usage (if yes how much as compared to before)	Are you satisfied with increase internet usage	Rate your internet accessibility after jio entered market	Do you wish to reduce internet usage	Increase in internet usage has impacted my life
N	Valid	100	99	99	98	99	99
	Missing	0	1	1	2	1	1
Mean		3.80	3.95	3.49	3.85	3.71	3.80
Std. Error of Mean		.103	.084	.119	.098	.103	.110
Median		4.00	4.00	4.00	4.00	4.00	4.00
Mode		4	4	4	4	4	4
Std. Deviation		1.035	.838	1.181	.967	1.023	1.097
Variance		1.071	.702	1.395	.935	1.046	1.204
Skewness		-.927	-.436	-.746	-.384	-.608	-.676
Std. Error of Skewness		.241	.243	.243	.244	.243	.243
Kurtosis		.546	-.383	.092	-.536	-.037	-.311
Std. Error of Kurtosis		.478	.481	.481	.483	.481	.481
Range		4	3	5	4	4	4
Minimum		1	2	0	1	1	1
Maximum		5	5	5	5	5	5
Sum		380	391	346	377	367	376
Percentiles	25	3.00	3.00	3.00	3.00	3.00	3.00
	50	4.00	4.00	4.00	4.00	4.00	4.00
	75	4.75	5.00	4.00	5.00	4.00	5.00

Table 2 Show the Frequency Statistics in Rate your internet usage per day, After jio entered market did it increased your internet usage (if yes how much as compared to before), Are you satisfied with increase internet usage, Rate your internet accessibility after jio entered market, Do you wish to reduce internet usage ,Increase in internet usage has impacted my life

**TABLE 3.** Reliability Statistics

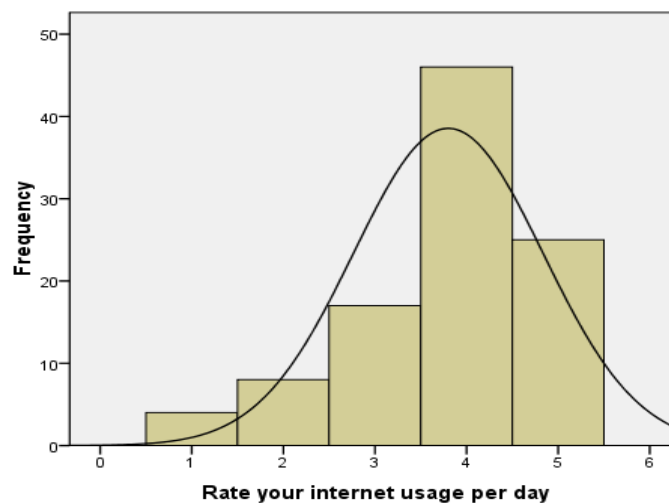
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.531	.532	6

Table 3 shows the Cronbach's Alpha Reliability result. The overall Cronbach's Alpha value for the model is .531

**TABLE 4.** Reliability statistics individual

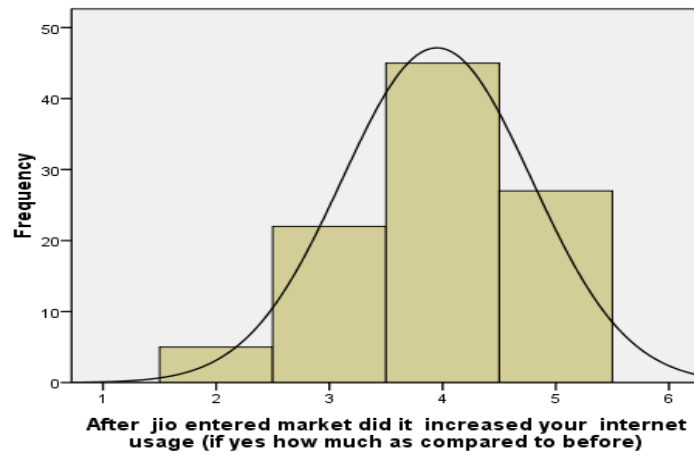
	Cronbach's Alpha if Item Deleted
Rate your internet usage per day	.473
After jio entered market did it increased your internet usage (if yes how much as compared to before)	.519
Are you satisfied with increase internet usage	.473
Rate your internet accessibility after jio entered market	.423
Do you wish to reduce internet usage	.546
Increase in internet usage has impacted my life	.465

Table 4 Shows the Reliability Statistic individual parameter Cronbach's Alpha Reliability results. The Cronbach's Alpha value for Rate your internet usage per day .473, After jio entered market did it increased your internet usage (if yes how much as compared to before) .519, Are you satisfied with increase internet usage.473, Rate your internet accessibility after jio entered market.423, Do you wish to reduce internet usage.546, Increase in internet usage has impacted my life.465



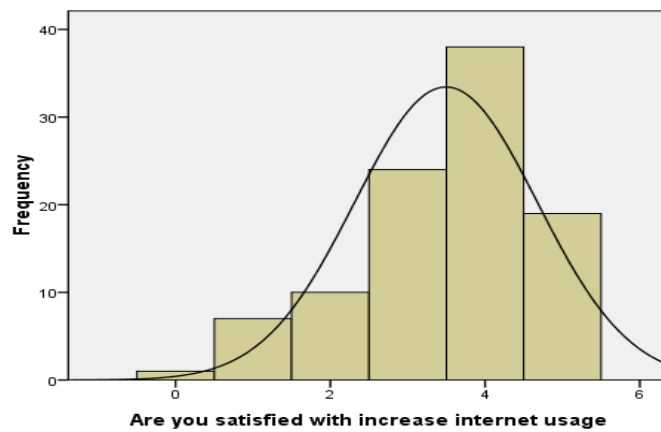
**FIGURE 1 .** the histogram plot for Rate your internet usage per day

Figure 1 shows the histogram plot for Rate your internet usage per day, After jio entered market did it increased your internet usage (if yes how much as compared to before), Are you satisfied with increase internet usage, Rate your internet accessibility after jio entered market, Do you wish to reduce internet usage ,Increase in internet usage has impacted my life.



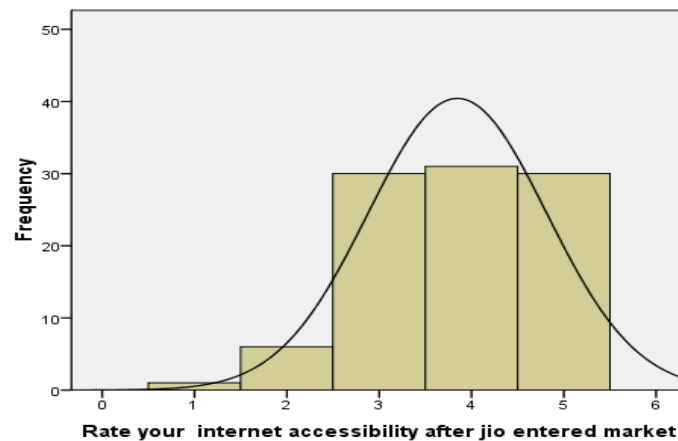
**FIGURE 2.** Frequency vs internet usage

Figure 2 shows the histogram plot for for Rate your internet usage per day, After jio entered market did it increased your internet usage (if yes how much as compared to before), Are you satisfied with increase internet usage, Rate your internet accessibility after jio entered market, Do you wish to reduce internet usage ,Increase in internet usage has impacted my life



**FIGURE 3.** Rate of internet accessibility

Figure 3 shows the histogram plot for for Rate your internet usage per day, After jio entered market did it increased your internet usage (if yes how much as compared to before), Are you satisfied with increase internet usage, Rate your internet accessibility after jio entered market, Do you wish to reduce internet usage ,Increase in internet usage has impacted my life



**FIGURE 4.** Rate of internet accessibility after jio entered market

Figure 4. There is a rise in internet accessibility after jio has entered the market it has been showed by the histogram.

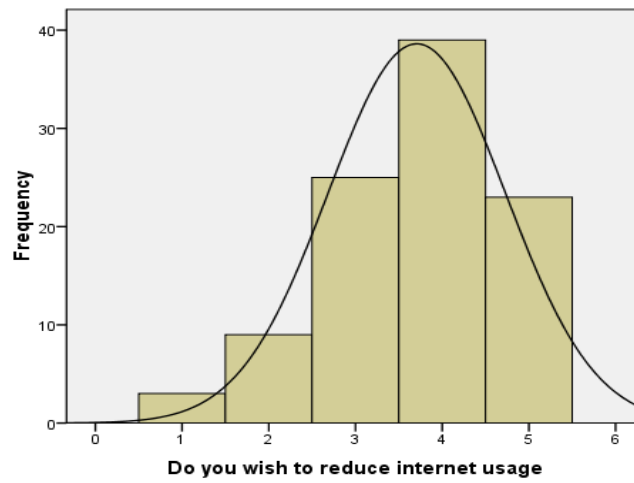


FIGURE 5. Frequency vs reduce internet usage

Figure 5. there is a increase in frequency and people wish to reduce their internet usage and most of them prefer to do that and we can see it through histogram

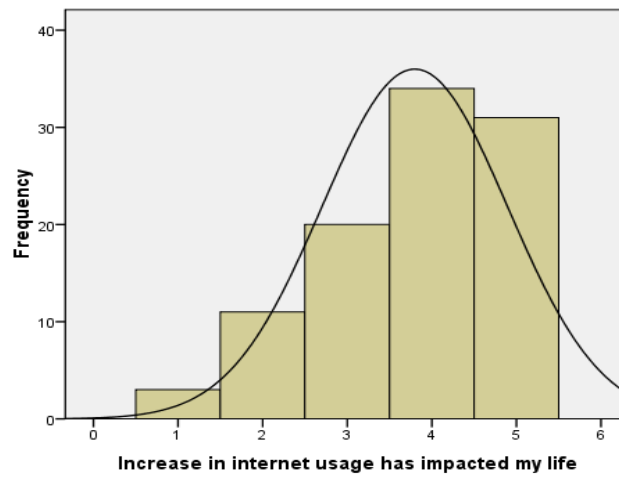


FIGURE 6. Frequency vs increased internet usage

Figure 6 : Through histogram we can see that the increase of internet usage has impacted the life of people and many people have said its impact of life.



**Table 5.** Correlations

		After jio entered market did it increased your internet usage (if yes how much as compared to before)	Are you satisfied with increase internet usage	Rate your internet accessibility after jio entered market	Do you wish to reduce internet usage	Increase in internet usage has impacted my life	
Rate your internet usage per day	Pearson Correlation	1	.129	.202*	.222*	.212*	.115
	Sig. (2-tailed)		.203	.045	.028	.035	.258
	N	100	99	99	98	99	99
After jio entered market did it increased your internet usage (if yes how much as compared to before)	Pearson Correlation	.129	1	-.057	.400**	-.027	.166
	Sig. (2-tailed)	.203		.575	.000	.793	.102
	N	99	99	98	97	98	98
Are you satisfied with increase internet usage	Pearson Correlation	.202*	-.057	1	.221*	.113	.353**
	Sig. (2-tailed)	.045	.575		.029	.266	.000
	N	99	98	99	97	98	98
Rate your internet accessibility after jio entered market	Pearson Correlation	.222*	.400**	.221*	1	.098	.174
	Sig. (2-tailed)	.028	.000	.029		.338	.088
	N	98	97	97	98	97	97
Do you wish to reduce internet usage	Pearson Correlation	.212*	-.027	.113	.098	1	.030
	Sig. (2-tailed)	.035	.793	.266	.338		.770
	N	99	98	98	97	99	98
Increase in internet usage has impacted my life	Pearson Correlation	.115	.166	.353**	.174	.030	1
	Sig. (2-tailed)	.258	.102	.000	.088	.770	
	N	99	98	98	97	98	99

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

## 5.CONCLUSION

The study focuses on examining the socio-economic implications of Jio's impact on internet usage. It investigates how Jio's efforts have contributed to digital inclusion, empowering communities that were previously underserved and bridging the digital divide. The research explores the changes in access to information, communication patterns, and economic opportunities for individuals and businesses as a result of Jio's interventions. Additionally, the study delves into the impact of Jio on digital content consumption, including streaming services, e-commerce, social media, and online education. It analyzes the shifts in consumer preferences, market dynamics, and the emergence of new business models in response to increased internet accessibility and affordability facilitated by Jio.SPSS, which stands for Statistical Package for the Social Sciences, plays a crucial role in this research. With its user-friendly interface, SPSS allows researchers to perform various data analysis tasks without requiring extensive programming knowledge. It provides a wide range of statistical procedures and techniques, making it suitable for both basic and advanced analysis. These procedures include descriptive statistics, inferential statistics, regression analysis, factor analysis, cluster analysis, and many others. Moreover, SPSS offers a syntax language known as the SPSS command language, which enables users to automate repetitive tasks and conduct more complex data manipulations and statistical modeling. This feature enhances the reproducibility of analyses and allows for more sophisticated statistical exploration. The study also recognizes the importance of exploring different aspects related to internet usage, such as affordable internet, urban connectivity, internet adoption, customer acquisition, and the negative impacts associated with internet use. These keywords represent critical areas that need to be examined to provide a comprehensive understanding of the implications and consequences of Jio's impact on internet usage.

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