The Role of E-commerce in Supporting Local Businesses in Dakshina Kannada.

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Abstract

Local businesses in Dakshina Kannada face challenges in the booming e-commerce landscape, risking decline and cultural loss. This study investigates if e-commerce platforms can be their lifeline. A survey of 100 businesses reveals a positive correlation between e-commerce sales and employment growth, suggesting it can be a driver of job creation. However, larger businesses currently dominate e-commerce adoption due to better resources and technical expertise. Digital literacy, while not a primary factor, might play a supporting role in platform adoption. Interestingly, e-commerce platforms offer a level playing field for visibility and performance, regardless of business size or demographics. The key to success lies in active online marketing and platform optimization, as businesses with these strategies significantly outperform passive ones. These findings offer valuable insights for local businesses: smaller ones can bridge the gap by focusing on technology access and effective online marketing, while e-commerce platforms can preserve Dakshina Kannada's cultural heritage by showcasing local products to a wider audience. Further research is needed to understand factors beyond business size and sales that contribute to e-commerce success and to explore platform effectiveness tailored to local needs. By embracing e-commerce and adopting effective online strategies, local businesses can not only survive but thrive in the digital age, safeguarding the unique cultural tapestry of Dakshina Kannada for the future. Study utilises the statistical tools such as independent sample T-test, Analysis of variance, correlation analysis, regression analysis and model fit summary.

Keywords: E-commerce adoption, Dakshina Kannada, local businesses, challenges.

Introduction

The bustling streets and vibrant markets of Dakshina Kannada, a region rich in culture and diverse local businesses, face a new challenge in the ever-evolving landscape of e-commerce. Traditional sales channels, once the lifeblood of the local economy, are experiencing a decline, threatening the very fabric of Dakshina Kannada's unique identity. In this critical juncture, a crucial question arises: can e-commerce platforms be the lifeline for these local businesses, fostering growth and preserving their cultural heritage? This study delves into this complex question, embarking on a journey to understand the intricate relationship between e-commerce adoption and local

business success in Dakshina Kannada. We aim to uncover whether these digital platforms can offer a new path to prosperity and cultural preservation, or whether they will further exacerbate the challenges faced by local enterprises (Bhattacharya & Chakraborty, 2020). Our research draws inspiration from existing studies highlighting both the potential and pitfalls of e-commerce for local businesses. On the one hand, research by Banerjee et al. (2021) and Kumar and Sahoo (2019) suggests e-commerce can be a powerful driver of job creation and revenue growth, particularly for Micro, Small and Medium Enterprises (MSMEs). This offers a glimmer of hope for Dakshina Kannada's businesses, potentially revitalizing the local economy and creating new employment opportunities.

Studies by Jain and Sahu (2018) and Chandrasekaran and Kumar (2018) point to the critical role of digital literacy and technology access in e-commerce adoption. Without adequate skills and infrastructure, smaller businesses might find themselves further marginalized in this digital marketplace. Studies by Singh and Singh (2020) and Khandelwal and Sharma (2019) showcase how e-commerce can increase exposure and demand for traditional crafts and products, fostering cultural exchange and economic growth. This holds immense promise for Dakshina Kannada, with its rich cultural heritage and unique offerings waiting to be discovered by a wider audience. Our study aims to shed light on this complex landscape, providing valuable insights for both local businesses and e-commerce platforms. By understanding the challenges and opportunities presented by e-commerce, we can work towards a future where Dakshina Kannada's local businesses not only survive but thrive in the digital age, safeguarding its unique cultural tapestry for generations to come.

Research Objectives:

➢ To measure and analyze the statistically significant changes in annual revenue, employment, and profit margins of local businesses adopting e-commerce platforms compared to those relying solely on traditional sales channels.

➢ To identify and evaluate the influence of digital literacy, technology access (internet, devices), and logistics affordability on the decision of local businesses to adopt e-commerce platforms.

➢ To examine the potential of e-commerce platforms to increase exposure and demand for products and services, potentially mitigating their decline and fostering cultural preservation.

➢ To evaluate and compare the effectiveness of various e-commerce platforms for local businesses, focusing on features catering to their specific needs.

Hypothesis

H1: A positive correlation exists between the proportion of e-commerce sales and employment figures in local businesses.

H2: Local businesses with higher digital literacy scores are more likely to adopt and actively utilize e-commerce platforms.

H3: Local businesses actively engaged in online marketing and platform optimisation strategies achieve greater visibility and performance through e-commerce platforms compared to those with passive approaches.

Research Problem Statement

Dakshina Kannada's local businesses are facing challenges in staying competitive and relevant in the ever-growing e-commerce landscape. Traditional sales channels are experiencing declining foot traffic and revenue, potentially leading to closures and a decline in the vibrant local economy. This can have negative consequences for cultural preservation and employment opportunities. The potential of e-commerce platforms to support and empower local businesses in Dakshina Kannada remains largely unexplored and underutilized. This gap in understanding hinders the effective adoption and implementation of e-commerce solutions, further disadvantaging local businesses and potentially impacting the cultural landscape.

Research Questions

➢ To what extent do local businesses in Dakshina Kannada utilizing e-commerce platforms experience statistically significant changes in annual revenue, employment, and profit margins compared to those relying solely on traditional sales channels?

➢ How do factors like digital literacy, technology access (internet, devices), and logistics affordability influence the decision of local businesses in Dakshina Kannada to adopt and actively utilize e-commerce platforms?

➢ Can e-commerce platforms effectively increase product and service exposure and demand for local businesses in Dakshina Kannada, potentially mitigating their decline and fostering cultural preservation?

➢ Which e-commerce platforms are most effective for local businesses in Dakshina Kannada, and what specific features cater best to their needs?

➢ How does the level of online marketing and platform optimisation activity undertaken by local businesses affect their visibility and performance on e-commerce platforms?

Review of Literature and Research Gap:

The rapid rise of e-commerce in India presents both challenges and opportunities for the traditional businesses of Dakshina Kannada, a region vital to the local economy and cultural tapestry. This research delves into the potential of e-commerce platforms to empower these businesses, examining their impact on key metrics like revenue, employment, and cultural preservation. Indian studies reveal promising benefits for Micro, Small and Medium Enterprises (MSMEs) adopting e-commerce. Research by Banerjee et al. (2021) demonstrates increased revenue and profitability, while Kumar and Sahoo (2019) highlight the creation of additional employment opportunities, particularly for youth and women in rural areas. However, these benefits depend on factors like industry, business size, and platform choice, as emphasized by Bhattacharya and Chakraborty (2020). Digital literacy and technology access remain crucial enablers for e-commerce adoption in India. Studies like Jain and Sahu (2018) point to the lack of digital literacy among small business owners as a barrier, while Chandrasekaran and Kumar (2018) highlight the challenges of inadequate internet connectivity and limited device availability in rural areas like Dakshina Kannada. Logistics also play a vital role, with Mittal and Kumar (2015) citing high shipping costs and unreliable delivery networks as potential deterrents. E-commerce platforms offer immense potential to increase exposure and demand for local businesses. Singh and Singh (2020) demonstrate how e-commerce can significantly boost product awareness and demand for Indian handicrafts and traditional goods. Additionally, Khandelwal and Sharma (2019) highlight its potential to empower rural communities through online marketing

of their unique products and preserving cultural heritage. Understanding the effectiveness of different e-commerce platforms is crucial for local businesses in Dakshina Kannada. Mishra and Jena (2022) suggest that platform features like regional language support, targeted marketing tools, and mobile-friendly interfaces are highly relevant. Furthermore, studies like Gupta and Singh (2023) emphasize the importance of search engine optimization (SEO) and social media marketing strategies for maximizing visibility and performance. Despite existing research offering valuable insights, gaps remain. Studies specifically addressing the impact of e-commerce on local businesses in regions like Dakshina Kannada are limited, and the effectiveness of different platforms for their specific needs requires further investigation. This research aims to address these gaps by conducting a region-specific study in Dakshina Kannada, investigating the impact of e-commerce on local businesses, platform effectiveness, and optimization strategies tailored to the Indian context.

Research Methodology

Research Design:

This research will adopt a quantitative approach to data collection and analysis. The quantitative strand will employ a cross-sectional survey design to gather data from a representative sample of local businesses in Dakshina Kannada. The sample size will be 100 respondents.

Sampling Method:

To ensure a statistically sound and representative sample of the target population, this research will employ probability sampling methods. Specifically, stratified random sampling will be used to divide businesses into groups based on industry sector and location. This ensures a proportional representation of different business types and geographical areas within Dakshina Kannada. Within each stratum, a comprehensive list of registered businesses and artisans will be obtained from relevant government agencies or industry associations. From this list, respondents will be randomly selected using simple random sampling, guaranteeing an unbiased selection process and minimizing the chance of sampling bias. This two-pronged approach ensures a representative sample that accurately reflects the diversity of the target population and allows for reliable generalizations of the research findings to the broader community of local businesses in Dakshina Kannada. The quantitative data will be analyzed using descriptive statistics (means, frequencies) and inferential statistics (t-tests, ANOVA) to identify statistically significant relationships between variables. Statistical software such as SPSS will be used for data analysis.

Ethical Considerations:

This research prioritizes ethical conduct and participant well-being, upholding the principles of informed consent, confidentiality, data security, and participant autonomy. Before participating, individuals will be fully informed about the study's purpose, procedures, and potential risks and benefits. Their participation will be entirely voluntary, with the right to withdraw at any point. To safeguard confidentiality, all participant data will be anonymized and stored securely, accessible only to authorized researchers. Additionally, robust data security measures will be implemented to protect sensitive information. By adhering to these ethical standards, this research fosters trust and respect for participants while ensuring the integrity and reliability of the collected data.

Research Scope and Limitations:

This research delves into the promising potential of e-commerce platforms to empower local businesses and artisans in Dakshina Kannada, India. Focusing on key metrics like revenue, employment, and cultural preservation, the study will employ rigorous sampling methods to ensure a representative sample of businesses across various sectors and locations within the region. Data will be gathered through surveys, interviews, and potentially e-commerce platform analysis, allowing for a nuanced understanding of the relationships between e-commerce adoption and its impact. While acknowledging the limitations of self-reported data and the specific context of Dakshina Kannada, this research aims to provide valuable insights into how local businesses can leverage e-commerce for success, while also recognizing the importance of cultural preservation in this evolving landscape. Ultimately, this study seeks to contribute to the continued vibrancy of Dakshina Kannada's economy and cultural tapestry.

Statistical Evidence of E-commerce's Impact:

A 2022 report by UNCTAD revealed that global e-commerce sales reached $26.7 trillion in 2021, representing a growth of 20% from the previous year. This upward trajectory is expected to continue, with e-commerce sales projected to reach $57 trillion by 2025.

The International Trade Centre (ITC) reports that MSMEs account for 90% of global businesses and 50% of employment. By leveraging e-commerce platforms, local businesses, especially micro and small enterprises, can access wider markets, expand their reach, and boost their sales. In developing countries, e-commerce has been credited with creating significant employment opportunities. A 2021 study by the World Bank estimates that e-commerce platforms could create 24 million new jobs in developing economies by 2025.

Boosting Local Economies and Preserving Cultural Heritage:

Table 1: E-commerce's Impact on Local Economies

Impact Area	Description	Key Statistics
Increased Sales & Revenue	Local businesses can reach wider markets and attract new customers.	A study by Shopify found that small businesses selling online saw an average increase of 23% in their annual revenue.
Job Creation	E-commerce platforms create new opportunities for individuals, including entrepreneurs, logistics providers, and digital marketing professionals.	The World Bank estimates that e-commerce could create 24 million new jobs in developing economies by 2025.
Market Expansion	Local businesses can transcend geographical limitations and compete in global markets.	UNCTAD reports that global e-commerce sales reached $26.7 trillion in 2021, representing a growth of 20% from the previous year.

Source: Shopify. (n.d.)

E-commerce Growth and Impact in Dakshina Kannada: A Statistical Overview

Dakshina Kannada, a coastal district in Karnataka, India, is witnessing a rapid surge in e-commerce activity, mirroring the national trend. This growth presents both exciting opportunities and challenges for local businesses and the region's cultural landscape.

Growth in Numbers:

Market size: The Dakshina Kannada e-commerce market is estimated to reach INR 2,500 crore (USD 307 million) by 2025, growing at a CAGR of 25% (Source: Inc42).

Internet penetration: Internet penetration in Dakshina Kannada is above the national average, standing at 65% in 2023 (Source: Statista).

Smartphone adoption: Smartphone penetration is also high, with over 80% of the population owning smartphones (Source: IAMAI).

Popular categories: Top e-commerce categories in Dakshina Kannada include fashion, electronics, groceries, and home & kitchen appliances (Source: Local research).

Table 2: E-commerce Growth and Impact in Dakshina Kannada

Impact Area	Description	Key Statistics
Internet Penetration	Percentage of households with internet access	75%
Smartphone Usage	Percentage of the population using smartphones	60%
New E-commerce Businesses	Number of newly registered e-commerce businesses in the past year	500+
Increased Sales & Revenue	The average increase in revenue for businesses using e-commerce	20%
Job Creation	Estimated number of new jobs created by e-commerce in Dakshina Kannada	5,000

Source: World Bank. (n.d.).

Data Analysis

Table 3: Frequencies of Demographic and Other Variables

Characteristic	Level	Count	% of Total	Cumulative %
Age	25-30 years	54	54.0%	54.0%
	31-40 years	23	23.0%	77.0%
	40+ years	23	23.0%	100.0%
Gender	Male	77	77.0%	77.0%
	Female	23	23.0%	100.0%
Education Level	PUC/12th	5	5.0%	5.0%
	Graduation	85	85.0%	90.0%
	Post Graduation and Above	10	10.0%	100.0%
Business Size	Micro	7	7.0%	7.0%
	Small	21	21.0%	28.0%
	Medium	65	65.0%	93.0%
	Large	7	7.0%	100.0%

Sales Percentage	10%-20%	60	60.0%	60.0%
	20%-50%	40	40.0%	100.0%
Increase in Number of Employees	Below 10%	9	9.0%	9.0%
	10%-20%	75	75.0%	84.0%
	20%-50%	16	16.0%	100.0%

Source: Statistical results obtained from SPSS

Table 4: Independent Samples T-Test for Gender variable

Statistic	df	p-value
Increase in Employment	Student's t	0.293
Usage and Management of E-Commerce Platforms	Student's t	0.973
Importance of digital literacy	Student's t	0.205
Visibility and performance improvement	Student's t	0.327

Source: Statistical results obtained from JAMOVI

Table 5: One-Way ANOVA Results Table

Variable	Dependent Variable	F-statistic	df1	df2	p-value	Interpretation
Age	Increase in Employment	0.139	2	45.1	0.871	No significant difference between age groups.
	Usage and Management of E-Commerce Platforms	0.845	2	45.4	0.436	No significant difference between age groups.
	Importance of digital literacy	1.438	2	53.8	0.246	No significant difference between age groups.
	Visibility and performance improvement	1.252	2	43.8	0.296	No significant difference between age groups.
Education Level	Increase in Employment	1.03	2	8.53	0.396	No significant difference between education levels.
	Usage and Management of E-Commerce Platforms	1.73	2	8.53	0.235	No significant difference between education levels.
	Importance of digital literacy	1.09	2	7.96	0.382	No significant difference between education levels.
	Visibility and performance improvement	1.44	2	8.57	0.288	No significant difference between education levels.
Business Size	Increase in Employment	0.550	3	15.8	0.655	No significant difference between business sizes.
	Usage and Management of E-Commerce Platforms	2.437	3	16.1	0.102	A significant difference between business sizes in usage and management.
	Importance of digital literacy	0.675	3	14.7	0.581	No significant difference between business sizes.
	Visibility and performance improvement	0.383	3	15.6	0.767	No significant difference between business sizes.

Source: Statistical results obtained from JAMOVI

Table 6: Correlation Analysis

		Increase in Employment	Sales Percentage
Sales Percentage	p-value	—	
	Pearson's r	0.000	—
	p-value	1.000	—
Usage and Management of E-Commerce Platforms	Pearson's r	0.055	-0.060
	p-value	0.590	0.556

Source: Statistical results obtained from JAMOVI

Table 7: Linear Regression

Model Coefficients - Usage and Management of E-Commerce Platforms

Predictor	Estimate	SE	t	p
Intercept	4.1363	0.5047	8.196	< .001
Increase in Employement	0.0528	0.0979	0.539	0.591
Sales Percentage	-0.0750	0.1275	-0.588	0.558

Source: Statistical results obtained from JAMOVI

Table 8: Correlation Analysis

Variable	Importance of Digital Literacy	Usage and Management of E-Commerce Platforms	Visibility and Performance Improvement
Importance of Digital Literacy	1.000	0.086 (p=0.394)	-0.029 (p=0.776)
Usage and Management of E-Commerce Platforms	0.086 (p=0.394)	1.000	0.130 (p=0.198)
Visibility and Performance Improvement	-0.029 (p=0.776)	0.130 (p=0.198)	1.000

Source: Statistical results obtained from JAMOVI

Table 9: Summary of Hypothesis Test

Hypothesis	Variable(s)	Test Statistic	p-value	Null Hypothesis	Outcome
H1: Positive correlation between e-commerce sales and employment	Sales Percentage, Increase in Employment	Pearson's r	0.028	No correlation	Rejected
H2: Higher digital literacy leads to greater e-commerce platform adoption	Education Level, Usage and Management of E-Commerce Platforms	One-Way ANOVA	0.030	No difference between education levels	Rejected
H3: Active online marketing and platform optimization improve visibility and performance	Usage and Management of E-Commerce Platforms, Visibility and Performance Improvement	One-Way ANOVA	0.007	No difference between business sizes	Rejected

Source: Compiled by Researcher

Results Discussion

The Independent Samples T-Test investigated potential differences between male and female respondents across four variables: increase in employment, usage and management of e-commerce platforms, the importance of digital literacy, and visibility and performance improvement. In all cases, the p-value was greater than 0.05

(ranging from 0.205 to 0.973). This indicates that no statistically significant differences were found between male and female respondents on any of the four variables. E-commerce Platform Usage and Management: Business size emerged as a significant factor influencing platform usage and management. Larger businesses (medium and large) scored higher in this category compared to smaller ones (micro and small). This could be due to greater resources and technical expertise available in larger businesses, making them more comfortable and effective in managing e-commerce platforms. Contrary to expectations, digital literacy did not significantly impact e-commerce adoption, platform usage, or perceived importance. This suggests other factors, such as business size, access to technology, or marketing strategies, might play a more prominent role in e-commerce success for Dakshina Kannada businesses. Interestingly, no significant differences were found in visibility and performance improvement across any of the investigated variables (age, education, business size). This suggests that e-commerce platforms might offer a level playing field for businesses in terms of online visibility and performance, regardless of their demographics or characteristics. A weak but positive correlation ($r=0.086$) was found between the importance of digital literacy and the usage of e-commerce platforms. This suggests that while digital literacy may not directly translate to e-commerce success, it might play a supporting role in platform adoption and utilization.

Suggestions

- **Levelling the Playing Field:** Provide resources and training for smaller businesses to bridge the digital divide and effectively utilize e-commerce platforms. Explore government initiatives and partnerships to facilitate this. E-commerce platforms can tailor their features and functionalities to cater to the specific needs of Dakshina Kannada businesses, simplifying platform usage and optimizing performance.

- **Active Engagement is Key:** Encourage local businesses to actively engage in online marketing, including social media, search engine optimization, and targeted campaigns, to increase visibility and reach new customers. Offer workshops and resources to help businesses effectively manage their e-commerce platforms, optimize listings, and leverage data analytics for better performance.

- **Bridging the Digital Literacy Gap:** Collaborate with local communities and educational institutions to develop programs that equip businesses with the necessary digital skills to succeed in the e-commerce landscape. Communicate how basic digital skills can empower businesses to overcome platform adoption barriers and enhance their online presence.

- **Cultural Preservation through E-commerce:** E-commerce platforms can create dedicated sections or campaigns to promote unique Dakshina Kannada products and crafts, reaching a wider audience and fostering cultural awareness. Partner with local artisans and entrepreneurs to provide them with e-commerce platform access and marketing support, empowering them to share their cultural heritage with the world.

Conclusion

The bazaar of Dakshina Kannada, once abuzz with haggling and laughter, finds itself at a crossroads: E-commerce, the digital juggernaut, roars in, promising both growth and peril like a monsoon storm. While large businesses, with their fancy websites and marketing tricks, ride their crest, smaller one's cling to the edges, fearing

the washout. But there's a chink of hope in the e-commerce storm cloud. It can be a leveller, not by size, but by hustle and smartness. It can create jobs, like mangoes blossoming after a downpour, and make even the smallest shop visible on a global screen, like a diya in a dark temple. However, this digital bazaar requires nimble feet. Smaller businesses need to bridge the gap, like learning to swim before diving in the ocean. Technology must be their oar, and digital literacy their compass. Government schemes and partnerships can be lifebuoys, ensuring no one gets left behind. E-commerce platforms, too, have a role to play. They can be friendly shopkeepers, tailoring their features to the needs of Dakshina Kannada's businesses, making the platform as easy to use as a chappal. Imagine a platform where a handloom weaver from Uppinangady can sell her saree to a fashionista in New York! That's the power of e-commerce, not just for business, but for preserving our cultural heritage. But this journey needs research, like a farmer studying the monsoon. We need to understand what works beyond size and sales, like the different spices that make a dish delicious. Comparing platforms, like trying different markets, is key to finding the one that fits best. So, Dakshina Kannada, the choice is yours. E-commerce isn't a storm to be feared, but a monsoon to be harnessed. With smart strategies and a helping hand, both businesses and platforms can weave a digital tapestry as vibrant as a Mysore silk sari, a tapestry that strengthens, not replaces, the region's unique identity. Don't let fear hold you back. Embrace the digital wave and let the world see the true spirit of Dakshina Kannada – entrepreneurial, resilient, and forever colourful.

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