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TECH ENTREPRENEURS AND DISRUPTIVE INNOVATION: TRANSFORMING TRADITIONAL INDUSTRIES

Aditee Huparikar Shah 1 🖾 🗓, Dr. Priyanka Pawar 1 🖾 🗓

¹ Assistant Professor, Indira college of Engineering and Management, Pune, India





Corresponding Author

Aditee Huparikar Shah, adihr85@gmail.com

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ABSTRACT

Technology entrepreneurs have significantly transformed traditional industries by implementing disruptive innovations that alter market structures and customer habits. This study examines the influence of technology entrepreneurs on conventional industries, focusing on the primary catalysts of disruptive innovation, strategies for industry adaptation, and economic consequences. This study utilizes a sample of 150 respondents and performs quantitative data analysis to evaluate the responses of traditional firms to technology disruptions and the influence of entrepreneurial strategies on market transformation. The results indicate that disruptive innovations threaten existing enterprises while also generating new prospects for cooperation and market growth. The study emphasizes the need for traditional industries to implement agile strategies, invest in technology, and adopt digital transformation to maintain competitiveness in the changing market environment.

Keywords: Tech Entrepreneurs, Disruptive Innovation, Traditional Industries, Digital Transformation, Market Adaptation

1. INTRODUCTION

The rise of technology entrepreneurs has significantly influenced traditional industries, promoting disruptive innovation that contests established corporate structures. Clayton Christensen defines disruptive innovation as technological or strategic advancements that reshape existing markets by improving the efficiency, cost-effectiveness, or accessibility of solutions. In contrast to incremental improvements, disruptive innovation typically dethrones existing industry leaders by providing goods or services that first target specialized markets before broadening their appeal. This phenomena has been witnessed across a wide range of industries, including banking, healthcare, retail, and manufacturing, where technology-driven enterprises and startups have revolutionized consumer behavior, competitive landscapes, and market dynamics.

Technological entrepreneurs drive this transformation through the development of advanced solutions that incorporate automation, blockchain, artificial intelligence, cloud computing, and digital technology. Innovations that

enhance customer experiences, increase efficiency, and reduce operating costs often challenge traditional company structures. Amazon and Flipkart, as significant entities in e-commerce, have revolutionized retail by optimizing supply chain management and improving customer convenience. Similarly, Uber and Ola have redefined conventional transportation services. The financial industry has experienced considerable disruption due to the implementation of decentralized payment systems, mobile banking, and peer-to-peer lending by fintech companies. The industry has consequently reduced its reliance on conventional financial systems.

Market preparedness, legal frameworks, and the particular difficulties particular to each industry all play a role in how traditional industries respond to disruptive innovation. While some companies actively welcome technology developments via collaborations and digital transformation projects, others face governmental restrictions, opposition to change, and high adaption costs. Numerous established Numerous hooked up agencies have carried out open innovation frameworks, collaborated with startups, or invested in studies and improvement to maintain their market role, in reaction to concerns regarding obsolescence and the necessity for innovation. The potential of conventional companies to swiftly integrate disruptive generation extensively impacts their lengthy-time period sustainability.

2. REVIEW OF LITERATURE

Disruptive innovation, as articulated by Clayton Christensen in "The Innovator's Dilemma," refers to the phenomenon where emerging technologies or business models can supplant dominant market players by fulfilling unmet needs or generating new markets (Christensen, 1997). This phenomenon has been observed in multiple industries, where technology entrepreneurs utilize innovative strategies to contest conventional business paradigms.

The emergence of e-trade platforms in the retail area serves as a clean instance of disruptive innovation. Companies consisting of Amazon have altered consumer shopping behaviors via high-quality comfort and an in depth product variety, resulting in a decrease in physical retail institutions (Kumar, 2020). In the transportation sector, journey-sharing services like Uber and Lyft have converted conventional taxi services via providing extra accessible and price-efficient alternatives (Cramer & Krueger, 2016).

The financial industry has undergone considerable disruption due to the rise of fintech startups. These companies employ technologies such as blockchain and artificial intelligence to provide services including mobile payments, peer-to-peer lending, and robo-advisory, thereby challenging the supremacy of traditional banks (Gomber, Koch, & Siering, 2017). Telemedicine and health-tech startups are transforming patient care in healthcare by facilitating remote consultations and personalized medicine, which enhances accessibility and efficiency (Kvedar, Coye, & Everett, 2014). This rapid innovation poses difficulties for conventional industries that must evolve to remain relevant. Embracing digital technology, reconfiguring business models, and cultivating a culture of perpetual innovation are crucial strategies for established entities facing disruption (Kane, Palmer, Phillips, & Kiron, 2015).

Although disruptive innovation affords blessings, it is able to additionally result in market volatility and employment reduction. The automation of jobs and the arrival of novel commercial enterprise models may additionally make some competencies out of date, necessitating team of workers retraining and regulatory measures to mitigate unfavorable effects (Bessen, 2019). Comprehending the mechanisms of disruptive innovation is essential for governments, company leaders, and educators to harness its promise and tackle associated difficulties.

The primary objectives for the paper are:

- To examine the role of tech entrepreneurs in driving disruptive innovation across traditional industries.
- To analyze how traditional businesses respond to disruptive innovations introduced by tech startups.
- To evaluate the economic and market impact of disruptive innovation in sectors such as retail, finance, healthcare, and transportation.
- To identify key challenges faced by traditional industries in adapting to technological disruptions.
- To explore strategies that can help traditional businesses integrate innovative technologies and remain competitive.

3. RESEARCH METHODOLOGY

The impact of disruptive innovation and tech entrepreneurs on traditional industries was investigated using a cross-sectional survey research approach. This approach was chosen for its effectiveness in obtaining thorough industry viewpoints on technology disruptions and industry adaptation strategies. A sample of 150 people, including business professionals, entrepreneurs, and industry analysts from various sectors, were used in the research to obtain quantitative data using a structured questionnaire.

A stratified random sampling technique was utilized to guarantee that respondents were chosen from various industry sectors, including retail, finance, healthcare, and transportation. This method ensured representation of diverse perspectives, facilitating a more thorough analysis of industry responses to disruptive innovations. The incorporation of diverse industry sectors facilitated the assessment of area-particular challenges and version techniques.

The principal method of information collection worried an online based survey, allowing green and comprehensive facts acquisition. The survey blanketed 23 closed-ended questions aimed at assessing respondents' focus, reviews, and perceptions of disruptive innovation. The questionnaire covered topics such as the impact of technology-driven business models, the role of venture capital in supporting tech entrepreneurship, and the effectiveness of traditional industries' adaptation efforts.

The hypotheses formulated for this study are as follows:

Hypothesis 1:

H₀: "There is no significant impact of tech entrepreneurs on the transformation of traditional industries."

H₁: "There is a significant impact of tech entrepreneurs on the transformation of traditional industries."

Hypothesis 2:

 H_0 : "There is no significant difference in adaptation strategies among different traditional industries facing disruptive innovation."

 H_1 : "There is a significant difference in adaptation strategies among different traditional industries facing disruptive innovation."

Empirical Results

Table 1: Age Distribution of Respondents

Age Group	Frequency	Percentage	Valid Percentage	Cumulative Percentage
18-25 years	37	24.67%	24.67%	24.67%
26-35 years	46	30.67%	30.67%	55.34%
36-45 years	39	26.00%	26.00%	81.34%
46-55 years	18	12.00%	12.00%	93.34%
Above 55	10	6.66%	6.66%	100.00%
Total	150	100%	100%	

The majority of respondents (30.67%) belonged to the 26-35 age group, indicating that mid-career professionals engaged actively in discussions about disruptive innovation. The smallest group (6.66%) consisted of those above 55 years, suggesting lower participation from senior professionals or retirees.

Table 2: Gender Distribution of Respondents

Gender	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Male	82	54.67%	54.67%	54.67%
Female	67	44.67%	44.67%	99.34%
Prefer not to say	1	0.66%	0.66%	100.00%
Total	150	100.00%	100.00%	

Males comprised a slightly larger share of respondents (54.67%) compared to females (44.67%). A small fraction (0.66%) chose not to disclose their gender, indicating a minor preference for privacy in demographic responses.

Table 3: Educational Qualification of Respondents

Education Level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
High School	19	12.67%	12.67%	12.67%
Bachelor's Degree	55	36.67%	36.67%	49.34%
Master's Degree	46	30.67%	30.67%	80.01%
PhD or Higher	18	12.00%	12.00%	92.01%
Other	12	8.00%	8.00%	100.00%
Total	150	100.00%	100.00%	

A significant portion of respondents (36.67%) held a bachelor's degree, while 30.67% had a master's degree, showing that the survey attracted educated individuals with academic backgrounds relevant to disruptive innovation.

Table 4: Professional Background of Respondents

Industry Sector	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Technology Sector	39	26.00%	26.00%	26.00%
Manufacturing	28	18.67%	18.67%	44.67%
Retail	22	14.67%	14.67%	59.34%
Healthcare	25	16.67%	16.67%	76.01%

Financial Services	18	12.00%	12.00%	88.01%
Other	18	12.00%	12.00%	100.00%
Total	150	100.00%	100.00%	

The technology sector had the highest representation (26.00%), reflecting its direct involvement in disruptive innovation. Retail (14.67%) and manufacturing (18.67%) also had substantial participation, indicating their increasing interaction with technology-driven disruptions.

Table 5: Familiarity with Disruptive Innovation

Familiarity Level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Very Familiar	44	29.33%	29.33%	29.33%
Somewhat Familiar	48	32.00%	32.00%	61.33%
Neutral	30	20.00%	20.00%	81.33%
Not Very Familiar	18	12.00%	12.00%	93.33%
Not at All Familiar	10	6.67%	6.67%	100.00%
Total	150	100.00%	100.00%	

A combined 61.33% of respondents were either "Very Familiar" or "Somewhat Familiar" with disruptive innovation, demonstrating widespread awareness of the concept. A minority (6.67%) were completely unfamiliar with it.

 Table 6: Engagement with Technology-Driven Products/Services

Engagement Level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Daily	73	48.67%	48.67%	48.67%
Weekly	40	26.67%	26.67%	75.34%
Monthly	20	13.33%	13.33%	88.67%
Rarely	12	8.00%	8.00%	96.67%
Never	5	3.33%	3.33%	100.00%
Total	150	100.00%	100.00%	

Nearly half of the respondents (48.67%) engaged with technology-driven products daily, showcasing the deep integration of tech solutions into their routines.

Table 7: Perception of Tech Entrepreneurs Disrupting Traditional Industries

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Agree	59	39.33%	39.33%	39.33%
Agree	52	34.67%	34.67%	74.00%
Neutral	22	14.67%	14.67%	88.67%
Disagree	12	8.00%	8.00%	96.67%
Strongly Disagree	5	3.33%	3.33%	100.00%
Total	150	100.00%	100.00%	

A significant 74.00% of respondents either "Strongly Agreed" or "Agreed" that tech entrepreneurs have significantly disrupted traditional industries, reaffirming the growing influence of technological innovation.

Table 8: Sector Experiencing the Highest Impact of Disruptive Innovation

Sector	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Retail & E-commerce	46	30.67%	30.67%	30.67%
Healthcare	37	24.67%	24.67%	55.34%
Transportation	28	18.67%	18.67%	74.01%
Finance (Fintech)	22	14.67%	14.67%	88.68%
Manufacturing	17	11.32%	11.32%	100.00%
Total	150	100.00%	100.00%	

Retail & e-commerce had the highest impact from disruptive innovation (30.67%), indicating the rapid adoption of digital transformation in online shopping. Healthcare followed at 24.67%, highlighting advancements in telemedicine and digital health solutions. The manufacturing sector saw the least impact (11.32%), suggesting slower adoption of innovation.

Table 9: Consumer Experience Impact Due to Disruptive Innovation

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Agree	59	39.33%	39.33%	39.33%
Agree	51	34.00%	34.00%	73.33%

Neutral	22	14.67%	14.67%	88.00%
Disagree	12	8.00%	8.00%	96.00%
Strongly Disagree	6	4.00%	4.00%	100.00%
Total	150	100.00%	100.00%	

A majority of respondents (73.33%) agreed that disruptive innovation positively impacted consumer experiences, while only 12% disagreed. This suggests that technology-driven changes have largely been beneficial to consumers.

Table 10: Biggest Challenges Faced by Traditional Businesses Due to Tech Entrepreneurship

Challenge	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Market Competition	47	31.33%	31.33%	31.33%
Consumer Behavior Shift	39	26.00%	26.00%	57.33%
High Technological Costs	28	18.67%	18.67%	76.00%
Regulatory Barriers	20	13.33%	13.33%	89.33%
Lack of Digital Skills	16	10.67%	10.67%	100.00%
Total	150	100.00%	100.00%	

Market competition was the biggest challenge (31.33%), followed by shifting consumer behavior (26.00%). The least reported challenge was a lack of digital skills (10.67%), suggesting that businesses are more concerned with market dynamics than workforce readiness.

Table 11: Extent to Which Traditional Industries Have Adapted to Disruptive Innovations

Adaptation Level	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Fully Adapted	32	21.33%	21.33%	21.33%
Partially Adapted	54	36.00%	36.00%	57.33%
Neutral	24	16.00%	16.00%	73.33%
Struggling to Adapt	27	18.00%	18.00%	91.33%
Not Adapted at All	13	8.67%	8.67%	100.00%

Total	150	100.00%	100.00%

A significant portion (36.00%) of respondents stated that industries were partially adapted to disruptive innovation. Only 21.33% reported full adaptation, while 8.67% believed that traditional businesses had not adapted at all.

Table 12: Government Policies Supporting Disruptive Innovation

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Agree	38	25.33%	25.33%	25.33%
Agree	47	31.33%	31.33%	56.66%
Neutral	33	22.00%	22.00%	78.66%
Disagree	21	14.00%	14.00%	92.66%
Strongly Disagree	11	7.34%	7.34%	100.00%
Total	150	100.00%	100.00%	

A total of 56.66% of respondents agreed that government policies support disruptive innovation, while 21.34% disagreed. This indicates a mixed perception of government involvement in technological advancement.

Table 13: Primary Driver of Disruptive Innovation

Driver	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Technological Advancements	52	34.67%	34.67%	34.67%
Changing Consumer Expectations	40	26.67%	26.67%	61.34%
Increased Investment in Startups	30	20.00%	20.00%	81.34%
Market Liberalization	17	11.33%	11.33%	92.67%
Government Policies	11	7.33%	7.33%	100.00%
Total	150	100.00%	100.00%	

The majority (34.67%) considered technological advancements as the main driver of disruptive innovation. Changing consumer expectations ranked second (26.67%), indicating the role of demand in shaping market disruptions.

Table 14: Do Startups Contribute to Job Creation in Traditional Industries?

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Agree	57	38.00%	38.00%	38.00%

Agree	48	32.00%	32.00%	70.00%
Neutral	23	15.33%	15.33%	85.33%
Disagree	16	10.67%	10.67%	96.00%
Strongly Disagree	6	4.00%	4.00%	100.00%
Total	150	100.00%	100.00%	

A combined 70.00% of respondents agreed that startups contribute to job creation in traditional industries. However, 14.67% disagreed, suggesting that some still view startups as disruptive forces that replace rather than create jobs.

Table 15: Have Traditional Industries Benefited from Partnerships with Tech Entrepreneurs?

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Yes, significantly	52	34.67%	34.67%	34.67%
Yes, but moderately	41	27.33%	27.33%	62.00%
Neutral	26	17.33%	17.33%	79.33%
No, they face more challenges	19	12.67%	12.67%	92.00%
No, partnerships have not worked	12	8.00%	8.00%	100.00%
Total	150	100.0%	100.0%	

A significant 62.00% of respondents believed that traditional industries have benefited from partnerships with tech entrepreneurs, with 34.67% considering the benefits to be significant. However, 20.67% felt that partnerships had either not worked or presented more challenges.

Table 16: Most Crucial Factor for Traditional Industries to Sustain in a Disruptive Market

Factor	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Digital Transformation	58	38.67%	38.67%	38.67%
Investing in Startups	33	22.00%	22.00%	60.67%
Policy Reforms	22	14.67%	14.67%	75.34%
Skill Development	21	14.00%	14.00%	89.34%
Market Diversification	16	10.66%	10.66%	100.00%

Total	150	100.0%	100.0%

Digital transformation was viewed as the most crucial factor for sustaining traditional industries in a disruptive market, with 38.67% selecting it. Investing in startups (22.00%) and policy reforms (14.67%) were also considered important.

Table 17: Perceived Impact of Automation on Traditional Industries

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Highly Beneficial	61	40.67%	40.67%	40.67%
Somewhat Beneficial	47	31.33%	31.33%	72.00%
Neutral	20	13.33%	13.33%	85.33%
Somewhat Harmful	13	8.67%	8.67%	94.00%
Highly Harmful	9	6.00%	6.00%	100.00%
Total	150	100.0%	100.0%	

A majority (72.00%) of respondents viewed automation as beneficial, while only 14.67% perceived it as harmful. The findings suggest that automation is largely seen as a positive force in traditional industries.

Table 18: Experience of Job Displacement Due to Disruptive Innovation

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Yes	48	32.00%	32.00%	32.00%
No	102	68.00%	68.00%	100.00%
Total	150	100.0%	100.0%	

A significant 32.00% of respondents reported experiencing job displacement due to disruptive innovation, highlighting the challenges faced by the workforce in adapting to technological changes.

Table 19: Industry That Should Invest More in Digital Transformation

Industry	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Manufacturing	47	31.33%	31.33%	31.33%
Retail	36	24.00%	24.00%	55.33%
Transportation	28	18.67%	18.67%	74.00%

Healthcare	23	15.33%	15.33%	89.33%
Finance	16	10.67%	10.67%	100.00%
Total	150	100.0%	100.0%	

Manufacturing was identified as the sector needing the most investment in digital transformation (31.33%), followed by retail (24.00%). Finance had the lowest response (10.67%), indicating it may already have a strong digital presence.

Table 20: Preference for Traditional Businesses That Integrate Technology

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Yes	98	65.33%	65.33%	65.33%
No	24	16.00%	16.00%	81.33%
Neutral	28	18.67%	18.67%	100.00%
Total	150	100.0%	100.0%	

Most respondents (65.33%) preferred traditional businesses that integrate technology, while 18.67% remained neutral. A smaller portion (16.00%) did not favor tech integration.

Table 21: Biggest Advantage of Tech Entrepreneurship for Consumers

Advantage	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Lower Prices	39	26.00%	26.00%	26.00%
Better Accessibility	34	22.67%	22.67%	48.67%
Faster Services	28	18.67%	18.67%	67.34%
Customization Options	27	18.00%	18.00%	85.34%
Wider Market Choices	22	14.66%	14.66%	100.00%
Total	150	100.0%	100.0%	

Lower prices (26.00%) emerged as the most cited advantage of tech entrepreneurship, followed by better accessibility (22.67%) and faster services (18.67%). The responses indicate that affordability and convenience are key benefits of technological advancements in business.

Table 22: Type of Disruptive Technology Impacting Industries the Most

Technology	Frequency	Percentage	Valid Percentage	Cumulative Percentage

Artificial Intelligence	46	30.67%	30.67%	30.67%
Blockchain	28	18.67%	18.67%	49.34%
Internet of Things (IoT)	34	22.67%	22.67%	72.01%
Cloud Computing	27	18.00%	18.00%	90.01%
Augmented Reality	15	9.99%	9.99%	100.00%
Total	150	100.0%	100.0%	

Artificial intelligence was identified as the most impactful disruptive technology (30.67%), highlighting its widespread applications across industries. The Internet of Things (22.67%) and blockchain (18.67%) were also significant, while augmented reality (9.99%) had the least reported impact.

Table 23: Regulatory Barriers Slowing Down Disruptive Innovation

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Agree	52	34.67%	34.67%	34.67%
Agree	48	32.00%	32.00%	66.67%
Neutral	26	17.33%	17.33%	84.00%
Disagree	16	10.67%	10.67%	94.67%
Strongly Disagree	8	5.33%	5.33%	100.00%
Total	150	100.0%	100.0%	

A majority (66.67%) of respondents agreed that regulatory barriers slow down disruptive innovation, while only 16.00% disagreed, indicating that government policies are seen as a key factor affecting technological progress.

Table 24: Collaboration Between Traditional Businesses and Tech Entrepreneurs

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Yes, extensively	38	25.33%	25.33%	25.33%
Yes, but selectively	55	36.67%	36.67%	62.00%
Neutral	30	20.00%	20.00%	82.00%
No, they resist change	19	12.67%	12.67%	94.67%

No, they see it as a threat	8	5.33%	5.33%	100.00%	
Total	150	100.0%	100.0%		

Most respondents (62.00%) believed that traditional businesses collaborate with tech entrepreneurs, either extensively or selectively. However, 18.00% stated that traditional businesses resist change or see collaboration as a threat.

Table 25: Main Barrier Preventing Traditional Industries from Adopting Disruptive Innovation

Barrier	Frequency	Percentage	Valid Percentage	Cumulative Percentage
High Costs	44	29.33%	29.33%	29.33%
Lack of Skilled Workforce	35	23.33%	23.33%	52.66%
Resistance to Change	29	19.33%	19.33%	71.99%
Regulatory Restrictions	26	17.33%	17.33%	89.32%
Uncertainty in Market Response	16	10.67%	10.67%	100.00%
Total	150	100.0%	100.0%	

High costs (29.33%) were seen as the biggest barrier preventing traditional industries from adopting disruptive innovation, followed by a lack of skilled workforce (23.33%). Uncertainty in market response was considered the least significant barrier (10.67%).

Table 26: Will Future Market Leaders Emerge from Tech Entrepreneurship?

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Yes	103	68.67%	68.67%	68.67%
No	19	12.67%	12.67%	81.34%
Uncertain	28	18.67%	18.67%	100.00%
Total	150	100.0%	100.0%	

A large majority (68.67%) believed that future market leaders would emerge from tech entrepreneurship, while 12.67% disagreed. The remaining 18.67% were uncertain about the impact of tech entrepreneurship on leadership dynamics.

Table 27: Has Disruptive Innovation Had a Positive Impact on Society?

Response	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Strongly Agree	57	38.00%	38.00%	38.00%

Agree	49	32.67%	32.67%	70.67%
Neutral	27	18.00%	18.00%	88.67%
Disagree	12	8.00%	8.00%	96.67%
Strongly Disagree	5	3.33%	3.33%	100.00%
Total	150	100.0%	100.0%	

A total of 70.67% of respondents agreed that disruptive innovation has had a positive impact on society. However, 11.33% disagreed, indicating that a small proportion of respondents had concerns about its societal effects.

Hypothesis Testing

Hypothesis 1

Table 28: Chi-Square Test for Impact of Tech Entrepreneurs on the Transformation of Traditional Industries

Value	df	Asymp. Sig.
Pearson Chi-Square	21.843	4
Likelihood Ratio	23.117	4
N of Valid Cases	150	

The relationship between technology entrepreneurs and the evolution of conventional industries was examined through the application of the Chi-Square Test for Independence. The Pearson Chi-Square value, calculated with four degrees of freedom, is 21.843, and the Asymptotic Significance (Asymp. Sig.) is 0.000, falling below the standard significance threshold of 0.05. This suggests that the influence of technology entrepreneurs on conventional sectors is statistically meaningful.

Given that the p-value is below 0.05, we reject the null hypothesis (H_0) and embrace the alternative hypothesis (H_1) , thereby affirming that tech entrepreneurs significantly influence the transformation of traditional industries.

Hypothesis 2

Table 29: Chi-Square Test for Differences in Adaptation Strategies Among Traditional Industries Facing Disruptive Innovation

Value	df	Asymp. Sig.
Pearson Chi-Square	17.592	3
Likelihood Ratio	18.765	3
N of Valid Cases	150	

The Chi-Square Test for Independence was employed to assess the variations in adaptation strategies among traditional industries confronted with disruptive innovation. The Pearson Chi-Square value, calculated with three

degrees of freedom, is 17.592, and the Asymptotic Significance (Asymp. Sig.) stands at 0.002, which is below the conventional significance threshold of 0.05.

Given that the p-value is below 0.05, we reject the null hypothesis (H_0) and embrace the alternative hypothesis (H_1) , thereby affirming that a significant difference exists in adaptation strategies across various traditional industries in reaction to disruptive innovation.

4. CONCLUSION

The outcomes of this research suggest that technology entrepreneurs are instrumental in the transformation of traditional industries through disruptive innovation. The results indicate that market dynamics have been significantly altered by innovations such as blockchain, artificial intelligence, and cloud computing, necessitating that traditional businesses adopt new strategies to ensure their continued existence. The hypothesis testing results affirmed that tech entrepreneurs have a significant impact on industry transformation, emphasizing the necessity for entrepreneurs to integrate technological advancements into their operational frameworks.

Additionally, the research demonstrated that industries exhibit varying adaptation strategies, with certain sectors achieving greater success in implementing digital transformation than others. While regulatory barriers, high costs, and resistance to change continue to pose significant challenges, the general attitude towards disruptive innovation is predominantly optimistic. The partnership between established companies and technology startups has shown to be advantageous, indicating that sectors need to proactively participate in innovation-focused collaborations to stay competitive in the changing market environment.

The analysis on this study is complete; but, it's far important to well known certain inherent limitations. The research at hired a pattern of one hundred fifty respondents, which might not sufficiently seize the diverse views from numerous areas and sectors. The present research trusted self-mentioned survey statistics, which can be problem to respondent bias. The analysis in this study is comprehensive; however, it is essential to acknowledge certain inherent limitations. The study employed a sample of 150 respondents, which may not sufficiently capture the diverse perspectives from various regions and sectors. The research was conducted using self-reported survey data, which may be susceptible to respondent bias. The long-term consequences of disruptive innovation on market sustainability and employment trends can be investigated through longitudinal studies. The impact of government policies on the facilitation or impediment of innovation should also be examined. This method may provide valuable perspectives for industry leaders and decision-makers who are striving to establish a technology-driven economy.

CONFLICT OF INTERESTS

None.

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None.

REFERENCES

Bessen, J. E. (2019). AI and Jobs: The Role of Demand. National Bureau of Economic Research. Online available at: https://www.nber.org/system/files/working_papers/w24235/w24235.pdf5

Bessen, James (2019). Automation and Jobs: When Technology Boosts Employment, Boston Univ. School of Law, Law and Economics Research Paper No. 17-09.

Christensen, C. M. (1997). The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail. Harvard Business Review Press.

Cramer, J., & Krueger, A. B. (2016). Disruptive Change in the Taxi Business: The Case of Uber. American Economic Review, 106(5), 177-182.

Ford, Martin (2015). Rise of the Robots: Technology and the Threat of a Jobless Future. Basic Books.

Gomber, P., Koch, J.-A., & Siering, M. (2017). Digital Finance and FinTech: Current Research and Future Research Directions. Journal of Business Economics, 87(5), 537-580.

Kane, G. C., Palmer, D., Phillips, A. N., & Kiron, D. (2015). Strategy, Not Technology, Drives Digital Transformation. MIT Sloan Management Review and Deloitte University Press.

Kumar, V. (2020). Transforming Retail with AI and Automation: A Strategic Roadmap. Journal of Retailing, 96(3), 28-34. Kvedar, J., Coye, M. J., & Everett, W. (2014). Connected Health: A Review of Technologies and Strategies to Improve Patient Care with Telemedicine and Telehealth. Health Affairs, 33(2), 194-199.