



EXPLORING THE CHALLENGES AND BUSINESS OPPORTUNITIES IN TECHNOPRENEURSHIP

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ABSTRACT:

Technopreneurship epitomizes the fusion of technological innovation and entrepreneurial acumen, offering a dynamic pathway for societal progress. In contrast to traditional entrepreneurship, it embodies collaboration among tech-savvy individuals, driving innovation through calculated risk-taking and creative endeavors. This study explores the multifaceted landscape of technopreneurship, delineating its core principles and pivotal role in shaping the future of business and society. Through an analysis of key areas such as information technology, biotechnology, and high-tech products, it elucidates the transformative potential of technopreneurship in addressing contemporary challenges and fostering economic growth. Despite its promise, technopreneurship faces barriers, including cultural resistance and access to capital, necessitating strategic interventions to unlock its full potential. The research objectives focus on assessing awareness levels, identifying business opportunities, analyzing growth factors, and categorizing challenges faced by technopreneurs. Utilizing descriptive research methodology, data collection employs surveys and questionnaires, though challenges such as response times and sample representativeness are acknowledged. In conclusion, this study underscores the importance of technopreneurship in driving innovation and national development, while acknowledging the need for tailored strategies to overcome inherent challenges and maximize its societal impact.

Key words: Technological innovation, entrepreneurial acumen, societal progress, technopreneurship, potential, growth, dynamic pathway, business.

INTRODUCTION:

Technopreneurship amalgamates technological innovation and entrepreneurial acumen, epitomizing the synergy between creativity and risk-taking. Unlike traditional entrepreneurship, it thrives on collaboration among tech-savvy visionaries capable of motivating diverse teams. Technopreneurship revolves around pioneering ideas that disrupt conventional norms, often leveraging science and technology to devise solutions to societal challenges. Key sectors for tech entrepreneurs include IT, electronics, biotechnology, and high-tech services. Contrary to popular belief, technological entrepreneurship isn't solely reliant on coding prowess; it encompasses a spectrum of skills and knowledge. In the era of AI and virtualization, technopreneurship has evolved into a complex endeavor shaping digital societies and smart cities. It represents a fusion of technical prowess, entrepreneurial flair, and technological innovation, aiming to introduce groundbreaking products and services. However, cultural barriers can impede its progress in certain regions, hindering economic growth. A tech entrepreneur is characterized by their innovative spirit, courage to tread uncharted paths, and unwavering passion for their craft. Technological entrepreneurship fosters economic development by marrying technical expertise with business acumen, driving innovation in future industries. Embracing tech entrepreneurship necessitates venturing beyond comfort zones to embrace new avenues of prosperity.

OBJECTIVES OF THE STUDY:

- To Determine the level of awareness among individuals in businesses regarding technopreneurship
- To identify the potential business opportunities within the technopreneurship landscape
- To analyze the factors that influence the growth and development of technopreneurship
- To identify and categorize the challenges faced by technopreneurs in fostering innovation.

RESEARCH METHODOLOGY:

TYPE OF RESEARCH

The study utilizes descriptive research methods to understand trends within a specific demographic. By gathering detailed data without influence, it uncovers valuable insights through surveys, interviews, and analysis. These insights guide strategic decisions, enhancing outcomes within the target demographic. Through meticulous observation, the endeavor aims to drive impactful results.

SOURCES OF DATA

When collecting data, the research must acknowledge primary and secondary data, obtained firsthand and from existing sources respectively, both essential for comprehensive analysis.

- **PRIMARY DATA**

Data Primary data refers to information that is collected first hand by the researcher specifically for the project's objectives. This data is original and has not been previously gathered or analysed. A questionnaire was given to the respondents with a set of predetermined questions using google form. The respondents were recorded and utilized for analytical purpose.

- **SECONDARY DATA**

Data Secondary data refers to information that is already available and can be used to support research findings. This data can be obtained from sources such as books, articles, journals, websites and surveys.

AREA OF THE STUDY

The area of the research is focused on Coimbatore, often referred to as the “Manchester of South India”, due to its prominence in various sectors such as foundries, pumps, textiles, industrial and commercial activities, education, information technology, healthcare, and manufacturing. As the second-largest city and urban agglomeration in Tamil Nadu, Coimbatore has emerged as a significant educational and healthcare center in the region.

SAMPLING SIZE

Based on the result, the questionnaire was restructured. 120 Samples were taken for the research study. The data collected through the various sources was converted into readable form through the process of classification, and arrangements and presentation of data. The population being large, the survey was among 120 respondents, who were selected randomly.

FINDINGS

EMERGING TECHNOLOGIES THAT HOLD POTENTIAL OPPORTUNITIES FOR TACKLING INDUSTRY CHALLENGES

The factor describes emerging technologies for tackling industry challenges. This technologies can be classified as 3D & 4D printing, DevOps technology, Machine learning and Drone technology.

TABLE NO: 1

S.NO	PARTICULARS	NO OF RESPONDENTS	PERCENTAGE
1	3D & 4D printing	41	34
2	DevOps technology	28	23
3	Machine learning	29	24
4	Drone technology	22	19
	Total	120	100

INTERPRETATION:

The most 34% of the respondents prioritize 3D & 4D printing, indicating significant interest in additive manufacturing technologies. 24% prioritize machine learning, showing interest in artificial intelligence techniques for data analysis and automation. 23% prioritize DevOps technology, reflecting a focus on improving software development. Minority, 19% of the respondents prioritize drone technology, suggesting interest in unmanned aerial vehicles for various applications.

OBSTACLES TECHNOPRENEURS FACE IN RECRUITING & RETAINING UP TALENT IN THEIR BUSINESS

The biggest obstacles of the technopreneurs is classified as Salary and benefits, Career growth opportunities, Recognition and appreciation and Lack of leadership and management.

TABLE NO:2

S.NO	PARTICULARS	NO OF RESPONDENTS	PERCENTAGE
1	Salary and benefits	24	20
2	Career growth opportunities	37	31
3	Recognition and appreciation	46	38
4	Lack of leadership and management	13	11
	Total	120	100

INTERPRETATION:

The most 38% of the respondents are selecting Recognition and appreciation, 31% of the respondents are selecting career growth opportunities as obstacles, 20% of the respondents are ranking for salary and benefits, Minority of 11% of the respondents are facing lack of leadership and management as their lowest level of obstacles.

THE TRANSFORMATION OF TRADITIONAL ENTREPRENEURSHIP INTO TECHNOPRENEURSHIP

The factors contribute to the transformation of traditional entrepreneurship into technopreneurship. The factors is classified as Understanding ethical responsibility, Brand reputation, Employee engagement and Risk mitigation.

TABLE NO: 3

S.NO	PARTICULARS	NO OF RESPONDENTS	PERCENTAGE
1	Understanding ethical responsibility	39	32
2	Brand reputation	38	32
3	Employee engagement	27	23
4	Risk mitigation	16	13
	Total	120	100

INTERPRETATION:

The most 32% of respondents prioritize understanding ethical responsibility, With 32% of the respondents prioritize maintaining brand reputation, indicating a focus on managing perceptions among customers, stakeholders, and the public to impact trust and competitiveness. 23% of respondents prioritize employee engagement, With Minority 13% of the respondents prioritize risk mitigation, understanding the importance of identifying and managing risks to protect the organization's interests and reputation.

ANOVA TEST**THE RELATIONSHIP BETWEEN AGE AND AGREEING LEVEL OF TECHNOPRENEURSHIP ELEMENTS WITHIN BUSINESS COMMUNITY****TABLE NO:4**

The relationship between age and the agreeing level of Technopreneurship elements within business community by using ANOVA test. the factors for agreeing is staying updated with tech advancement, Conducting surveys, Utilizing digital platforms, Open up new opportunities and Risk taking in business culture.

ELEMENTS OF TECHNOPRENEURSHIP	GROUPS	Sum Of Squares	DF	Mean Square	F	Sig.
Stay updated with technological advancement	Between Groups	10.441	3	3.480	3.530	.017
	Within Groups	114.359	116	.986		
	Total	124.800	119			
Conducting surveys	Between Groups	2.400	3	.800	1.276	.286
	Within Groups	72.725	116	.627		
	Total	75.125	119			
Utilizing digital platforms	Between Groups	2.633	3	.878	.950	.419
	Within Groups	107.159	116	.924		
	Total	109.792	119			
Open up new opportunities	Between Groups	9.938	3	3.313	2.216	.090
	Within Groups	173.387	116	1.495		

	Total	183.325	119			
Risk taking in business culture	Between Groups	5.817	3	1.939	.770	.513
	Within Groups	292.150	116	2.519		
	Total	297.967	119			

INTERPRETATION:

The calculated value (0.017) which is lesser than the significance level of $P < 0.05$. It is stated null hypothesis is rejected. There is significance relationship between the age and staying updated with tech advancement of entrepreneurs within business community.

CHI-SQUARE TEST**EDUCATIONAL STATUS & THE ACTIONS CAN ENTREPRENEUR TAKE TO BECOMING TECHNOPRENEUR AMONG INDIVIDUALS REGARDING TECHNOPRENEURSHIP.****TABLE NO: 5**

H0: There is no significant relationship between educational status and the actions can entrepreneur take to becoming technopreneur among individuals regarding technopreneurship.

H1: There is a significant relationship between educational status and the actions can entrepreneur take to becoming technopreneur among individuals regarding technopreneurship.

Chi- Square test:

PARTICULARS	VALUE	DF	ASYMPTOTIC SIGNIFICANCE (2-SIDED)
Pearson Chi-Square	18.399 ^a	9	.031
Likelihood Ratio	18.859	9	.026
Linear-by-Linear Association	1.629	1	.202
N of Valid Cases	120		

Level of significance: 5% or $\alpha = 0.05$

INTERPRETATION:

The significant value is less than the 5% level of significance. i.e., $0.031 < 0.05$. So the null hypothesis is rejected. It is observed that there is significant relationship between educational status and the actions can entrepreneur take to becoming technopreneur among individuals regarding technopreneurship.

TABLE NO:6**NO. OF YEARS EXPERIENCE IN BUSINESS & THE BEST WAY TO ALLOCATE RESOURCES**

H0: There is no significant relationship between educational status and the actions can entrepreneur take to becoming technopreneur among individuals regarding technopreneurship.

H1: There is a significant relationship between educational status and the actions can entrepreneur take to becoming technopreneur among individuals regarding technopreneurship

Chi- Square test:

PARTICULARS	VALUE	DF	ASYMPOTOTIC SIGNIFICANCE(2-SIDED)
Pearson Chi-Square	16.268 ^a	9	0.062
Likelihood Ratio	16.483	9	0.057
Linear-by-Linear Association	1.189	1	0.276
N of Valid Cases	120		

Level of significance: 5% or $\alpha=0.05$

INTERPRETATION:

The significant p- value is equal to than the 5% level of significance. i.e., $0.057= 0.05$. So the null hypothesis is rejected. It is observed that there is significant relationship between No. of years experience in business & the best way to allocate resources effectively to find opportunities for technopreneurship.

CONCLUSION:

In conclusion, "Exploring Challenges and Business Opportunities in Technopreneurship" highlights the varied awareness levels among individuals regarding technopreneurship, emphasizing the need for further education and awareness-building efforts. The study identifies diverse business opportunities within the technopreneurship landscape, ranging from innovative technologies to niche markets. Key drivers of growth include access to resources, technological innovation, and strategic partnerships, while successful technopreneurs exhibit a diverse skill set essential for navigating challenges and capitalizing on opportunities effectively. However, challenges such as talent recruitment, resource allocation, and societal attitudes towards innovation pose significant obstacles. The role of incubators in supporting technopreneurs is emphasized, offering mentorship, funding assistance, and networking opportunities. the study provides actionable recommendations for fostering innovation, entrepreneurship, and economic growth in the technopreneurial landscape.

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