THE AI REVOLUTION: TRANSFORMING THE FUTURE OF CREATIVITY IN STARTUP AND ENTREPRENEURSHIP

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ABSTRACT

This paper analyzes the use of Artificial Intelligence (AI) in Entrepreneurship. The AI application is diverse and multidimensional, with significant impact and various industries. Artificial Intelligence has the power to transform industries and societies, bringing about profound changes in various aspects of life. This paper focuses on identifying key trends, drivers and challenges in AI adoption and to examine the potential application of AI in addressing complex global challenges. The methodology used in this paper for research is Convenience sampling and tools like chi square, T-test, F-test.

Key Words: Artificial Intelligence, Transformation, Startups, Entrepreneurship.

INTRODUCTION

The primary goal of AI research is to create intelligent machines that replicate human cognition and behavior, with enhanced performance characteristics such as speed and accuracy. Artificial Intelligence has the power to transform industries and societies, bringing about profound changes in various aspects of life. In culmination, the advent of Artificial Intelligence heralds a new era of technological innovation. This technological tsunami is sweeping across industries, revolutionizing the way we live, work, and innovate.AI-powered startups are redefining traditional industries, creating new markets, and solving complex global challenges.

REVIEW OF LITERATURE

- **Emerging technology and business model innovation: the case of artificial intelligence by Jaehun Lee, Taewon Suh (2019):** this study shows that artificial intelligence is driving innovation. It shows that AI can be a catalyst for business model innovation, enabling companies to create new revenue streams and disrupt traditional industries.it highlights the needs of companies to develop an innovative AI- based culture and to address contingent factors that shape business model innovation.

- **Entrepreneurial action, creativity, & judgment in the age of artificial intelligence By David M Townsend, Richard A Hunt (2019):** This paper investigates the profound impact of advanced artificial intelligence (AI) systems on entrepreneurial action, particularly in navigating uncertainty. It underscores how decades of progress in developing computationally complex AI systems have resulted in cognitive capabilities that match or suppress human capabilities, enabling AI to revolutionize decision-making and creativity in entrepreneurial environments.

SCOPE OF THE STUDY

This study is based on the AI revolution in transforming the future in startups and entrepreneurship.

OBJECTIVES OF THE STUDY

- To investigate the role of Al in driving innovation and creativity in startups.
- To develop a framework or model for understanding the transformative potential of Al in startups and entrepreneurship.
- To analyze the economic and social implications of the Al revolution on startups and entrepreneurship.
- To explore the current state of AI adoption in startups and entrepreneurial ventures.

RESEARCH METHODOLOGY

This study employed a convenience sampling design, collecting data from a sample of 201 respondents over a period of 2 months. Data was gathered through a combination of primary and secondary sources, including a structured questionnaire for primary data and websites, books, and journals for secondary data. The data was then analyzed using various statistical tools, including reliability test , percentage analysis, ANOVA, T-Test, and Cross table.

LIMITATIONS OF THE STUDY

- This survey was conducted only in Chennai city.
- The study focuses towards the AI transformation of startup and entrepreneurship in future.
- This study provides a foundation for future updates and new discoveries.

ANALYSIS AND INTERPRETATION

I. Demographic profile of the respondents

S.NO.	PARTICULAR	CATEGORY	FREQUENCY	PERCENT
1	GENDER	male	92	45.8
		female	109	54.2
		Total	201	100.0
2	AGE GROUP	less than 20	171	85.1
		21 to 30	25	12.4
		31 to 40	5	2.5
		Below 40	0	0
		Total	201	100.0
3	EDUCATION	HSLC	18	9.0
		UG	170	84.6
		PG	8	4.0
		Others	5	2.5

		Total	201	100.0
4	MONTHLY INCOME	Less than 20,000	118	58.7
		21,000 to 30,000	44	21.9
		31,000 to 40,000	13	6.5
		Above 40,000	26	12.9
		Total	201	100.0

Source: Primary Data – Questionnaire

- The above table reflects that 85.1% of the respondents belong to less than 20 and 12.4% of the respondents belong to 21-30 and 2.5% of the respondents belong to 31- 40.
- The above table shows that 9% of the respondents belong to HSLC and 84.6% of the respondents belong to UG and 4% of the respondents belong to PG and 2.5% of the respondents belong to others.
- The above table reflects that 58.7% of the respondents belongs to less than 20,000 of monthly income and 21.9% of the respondents belongs to 21,000 – 30,000 of the monthly income and 6.5% of the respondents belongs to 31,000 – 40,000 of the monthly income and 12.9% of the respondents belongs to above 40,000 of the monthly income.
- The above table shows that 45.8% of the respondents are male group and 54.2% are female.

II. RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.822	.821	50

The Cronbach's Alpha criterion was applied to test the reliability. The value was determined as 0.822 (82.2%) information collected by the respondents.

This study attributed several factors, including the interrelatedness of items, where survey questions are well correlated but not identical. The number of items also plays a role, as a moderate to large set of well-constructed questions tends to increase reliability. Additionally,

response variability influences the alpha value, as diverse but consistently related answers contribute to this level of reliability.

III. CROSSTABLE

Ho: there is no significant association between gender and AI's strong potential to drive innovation in start-ups, AI skill for entrepreneurs to run successful startups, ethical consideration in AI technologies, entrepreneurs prioritizing aspects of AI, inspiration to explore AI's entrepreneurial journey, current usage of AI operation startups in percentage.

H1: there is significant association between gender and AI's strong potential to drive innovation in start-ups, AI skill for entrepreneurs to run successful startups, ethical consideration in AI technologies, entrepreneurs prioritize aspects of AI, inspiration to explore AI's entrepreneurial journey, current usage of AI operation startups in percentage.

S.NO.		VALUE	DF	Asymptotic Significance (2-sided)
1	Pearson Chi-Square	1.975[a]	4	.740
	Likelihood Ratio	1.971	4	.741
	Linear-by-Linear Association	1.340	1	.247
	N of Valid Cases	201		
2	Pearson Chi-Square	5.712[a]	4	.222
	Likelihood Ratio	5.962	4	.202
	Linear-by-Linear Association	.972	1	.324
	N of Valid Cases	201		
3	Pearson Chi-Square	1.872[a]	3	.599
	Likelihood Ratio	1.867	3	.600
	Linear-by-Linear	.474	1	.491

	Association			
	N of Valid Cases	201		
4	Pearson Chi-Square	.969[a]	3	.809
	Likelihood Ratio	.978	3	.807
	Linear-by-Linear Association	.457	1	.499
	N of Valid Cases	201		
5	Pearson Chi-Square	1.526[a]	3	.676
	Likelihood Ratio	1.548	3	.671
	Linear-by-Linear Association	.003	1	.953
	N of Valid Cases	201		
6	Pearson Chi-Square	4.737[a]	3	.192
	Likelihood Ratio	4.758	3	.190
	Linear-by-Linear Association	.819	1	.366
	N of Valid Cases	201		

Inference:

The above table represents that the P value is more than 0.05; hence Ho is accepted at the 5% level of significant. Therefore, it is consulted that there is no significant association between gender and entrepreneurs prioritize in aspects of AI, AI's strong potential to drive innovation in start-ups, inspiration to explore AI's entrepreneurial journey, AI skill for entrepreneurs to run a successful startups, ethical consideration in AI technologies, and current usage of AI operation startups in percentage.

IV. ANOVA

Ho: there is no significant association between age and Using AI in daily life, AI in future entrepreneurship, Prioritizing AI for growth, AI creates new opportunities, AI changes entrepreneurs' role.

H1: There is a significant association between age and Using AI in daily life, AI in future entrepreneurship, Prioritizing AI for growth, AI creates new opportunities, AI changes entrepreneurs' role.

S.NO.	PARTICULARS		Sum of Squares	df	Mean Square	F	Sig.
1	Using AI in daily life	Between Groups	4.944	2	2.472	2.415	.092
		Within Groups	202.678	198	1.024		
		Total	207.622	201			
2	AI in future entrepreneurship	Between Groups	.811	2	.405	.445	.641
		Within Groups	180.244	198	.910		
		Total	181.055	201			
3	Prioritize AI for growth	Between Groups	1.120	2	.560	.299	.742
		Within Groups	368.400	197	1.870		
		Total	369.520	201			
4	AI creates new opportunities	Between Groups	5.238	2	2.619	2.673	.072
		Within Groups	193.966	198	.980		
		Total	199.204	201			
5	AI changes entrepreneurs	Between Groups	1.506	2	.753	.557	.574

	role	Within Groups	267.747	198	1.352		
		Total	269.254	201			

Inference:

The above table represents that the P value is more than 0.05; hence Ho is accepted at the 5% level of significant. Therefore, it is concluded that there is no significant association between age and the Prioritize AI for growth, AI in future entrepreneurship, AI changes entrepreneurs' role, Using AI in daily life, AI creates new opportunities.

V. ONE SAMPLE T-TEST

S.NO.		N	Mean	Std.deviation	Std. error	t	Sig. (2-tailed)	Rank
1	Promising application of AI in future	201	2.77	1.483	.105	26.440	.000	5th rank
2	Transformative potential of AI in their startups	201	2.05	.890	.063	32.733	.000	3rd rank
3	AI enhance customer engagement and experience in startups	201	2.33	.976	.069	33.838	.000	1st rank
4	Adoption of AI in startup funding and investment	201	2.15	.915	.065	33.294	.000	2nd rank
5	AI's new opportunities in entrepreneurship	201	2.11	.958	.068	31.214	.000	4th rank

Inference:

From the above mentioned table it is found that the' values range from 26.440 to 33.838. Similarly the mean values range from 2.05 to 2.77 with respective standard deviation and standard error the ranking is done with the respective t values and it indicates that with reference to enhance customer engagement and experience in startups with AI is their first preference. The Adoption of AI in startup funding and investment is their second, followed by third and fourth rank given to the Transformative potential of AI in their startups and AI's new opportunities in entrepreneurship. The last preference that is fifth rank goes to the Promising application of AI in future.

FINDINGS

- 54.2% of the respondents are female.
- 85.1% of the respondents belong to the age group of less than 20.
- 84.6% of the respondents belong to the UG category.
- 58.7% of the respondents belong to less than 20,000 of monthly income.
- In cross table, for all the factors mentioned, there is no significant association between gender and AI's strong potential to drive innovation in start-ups, AI skill for entrepreneurs to run a successful startups, ethical consideration in AI technologies, entrepreneurs prioritize in aspects of AI, inspiration to explore AI's entrepreneurial journey, current usage of AI operation startups in percentage. Hence, AI's benefit is equally used by both the factors male and female factors.
- In ANOVA, "Prioritize AI for growth, AI in future entrepreneurship, AI changes entrepreneurs' role" this above mentioned factor is highly concentrated by the age group between less than 20, 21 – 30, 31 – 40. Above 40 are not involved in these factors.
- In one sample T-test, the 3 highest t value is 33.838, 33.294, 32.733 belongs to AI enhancing customer engagement and experience in startups, Adoption of AI in startup funding and investment, Transformative potential of AI in their startups. These factors are compared with the education and by which the respondents are concentrated with AI startups funding and investment.

SUGGESTION

- This study implies entrepreneurs should integrate AI powered tools for innovation, automation, and efficiency.

- All entrepreneurs and employees integrating AI tools and analytics should up skill their techniques.
- To ensure AI applications are transparent, unbiased, and secure.

CONCLUSION

The foremost focus of this paper is to analyze and explore AI adoption in startups and to develop a framework for understanding AI's transformative potential in entrepreneurship. This paper has a positive impact as we can see the growth and transformation of AI. We found that the survey reveals that the majority of respondents are female, under 20 years' old, undergraduate students, and have a monthly income of less than 20,000.

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