

Generative AI and Individual Entrepreneurial Orientation

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Abstract

Abstract (maximum 120 words)

This research conducts a contemporary empirical analysis of generative artificial intelligence (GenAI)'s effects on the five facets of individual entrepreneurial orientation (Ind.EO): innovativeness, proactiveness, risk-taking, autonomy, and competitive aggressiveness. Grounded in resource-based view (RBV) theory, it posits positive associations and evaluates them through logistic regression using survey responses from 428 Iranian entrepreneurs. Findings reveal notable boosts in four facets among GenAI adopters—innovativeness, proactiveness, autonomy, and competitive aggressiveness—yet no influence on risk-taking. Such outcomes emphasize GenAI's capacity to elevate specific entrepreneurial traits while delineating limits, offering insights for theory, training, and strategy in AI-enhanced entrepreneurship.

Research method

Design: Quantitative, cross-sectional, self-report survey.

Sample: 428 entrepreneurs (startup founders & team members) from Iranian science & technology parks (58% male, mean age 38.2 years, 62% tech ventures).

Variables :Independent: GenAI usage (yes/no – regular user).

Dependent: Five Ind.EO dimensions (dichotomized via median split – high/low).

Controls: Age, gender, education, venture stage, venture age.

Instruments: Bolton & Lane's (2012) Ind.EO scale ($\alpha = 0.78-0.85$).

Analysis: Binary logistic regression with odds ratios (OR), 95% CI, Hosmer-Lemeshow goodness-of-fit, bootstrapping (1,000 resamples).

conclusion

It is the first empirical study investigating the impact of generative AI use on specific aspects of individual EO.

GenAI significantly enhances four out of five Ind.EO dimensions (innovativeness, proactiveness, autonomy, competitive aggressiveness) but does not affect risk-taking.

This supports the resource-based view by positioning GenAI as an intangible asset that differentially shapes entrepreneurial traits.

The null effect on risk-taking suggests that while GenAI improves risk analysis, it does not alter an individual's psychological tolerance for downside uncertainty.

Practically, entrepreneurship educators should integrate GenAI training to boost proactive and innovative behaviors, while policymakers must address risks of homogenization and algorithmic dependency. Future research should explore longitudinal designs and ethical AI governance.

The purpose of the research

This paper fills this gap by analyzing the impact of generative AI technologies on each factor of Ind.EO.

Firstly, with specific reference to the resource-based view (RBV), an entirely new type of intangible resource with the potential to dramatically shift the available set of resources for entrepreneurs, creating a theoretical need for refinement related to the manifestation of entrepreneurial orientation in high-tech environments.

Secondly, with specific regard to the practical dimension, with GenAI tools rapidly becoming available for use by aspiring and established entrepreneurs worldwide, understanding these impacts has a pressing pragmatic need related to entrepreneurship education and support infrastructure.

Thirdly, an empirical methodology consideration is a pressing need given the rapid diffusion of GenAI among entrepreneurs without attendant systematic attention related to understanding the impact effects.

Practical or simulation results

Logistic Regression Results (GenAI Users vs. Non-Users)

Ind.EO Dimension	OR	95% CI	p-value	Supported
Innovativeness	1.96	[1.26 – 3.07]	0.003	✓
Proactiveness	2.10	[1.34 – 3.28]	0.001	✓
Risk-taking	1.26	[0.81 – 1.95]	0.312	✗
Autonomy	1.93	[1.23 – 3.04]	0.005	✓
Competitive Aggressiveness	2.22	[1.42 – 3.47]	<0.001	✓

• Classification accuracy: 77%–81% across models
• Hosmer-Lemeshow $p = 1.00$ (perfect fit)



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