

Comparative Study of Risk-Taking and Academic Performance using a Career Choice Simulator

by

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in

Foundations of Utility and Risk Conference (FUR 2018)
([https://www.furconference.org/poster-session/;](https://www.furconference.org/poster-session/))

Report No: IIIT/TR/2018/-1



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June 2018

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Abstract

We studied financial risk-decision behavior with a career choice simulator to understand a) academic performance and risk, b) pressure of financial net-worth c) 'brand' image of place of work. The main objective to check the balance between logical choices in financial decisions. An interactive game-like app was designed and developed. The gameplay was designed to allow players to maximize net-worth by choosing a job from a set of available choices. Each job had two-forced choice options- an annual salary and a performance cutoff. The performance score for the job selected was generated at the end of each turn, e.g., if a user's performance was lower than the selected job's performance cut-off, the user was 'fired' and an amount of \$100,000 was deducted from the net-worth leading to the next stage. Alternatively, if the performance score was higher, the salary amount was added to user's net-worth. Performance score at each stage was presented from a pre-defined set. There was a total of 15 stages divided into 3 rounds. The first round had two metrics, salary offered and performance cut-off. The second round included company names where a company with a perceived bigger brand value was added to the job with a higher risk. In the third round, the companies were reversed, i.e., one with a higher brand value was added to a lower risk job. The participants- 50 (25 with a GPA ≥ 8 , and an equal number with a GPA < 8) sophomore computer science students' responses were recorded.

Afterwards, they were asked to rank their preference for location, company and salary. Results show that the average net-worth of students with a GPA ≥ 8 was 30.7% greater than students with a GPA < 8 . This could indicate that better academic grades results in a tendency to weigh risk-reward scenarios better. Students with lower GPA took 10.2% more risks, an interesting result that needs to be examined with respect to the effect of lower expectation from society and hence propensity for high risk behavior. Students with lower GPA also got fired 43.5% more, which can be seen in the above light or that the high performing students are better adept at taking smarter risks. 24 students ranked salary as the most important factor in choosing a job, followed by 16 for company, and 10 for location. Preference for company had 7% lower net-worth return. One can infer that allegiance to 'brands' interferes with the logical decision making. Contrary to expectations, no direct correlation was observed between net-worth of an individual and risk-taking, which indicated that the tendency to risk is independent of net-worth and people are inherently either high or low risk takers. The findings from this study highlights certain constraints of the educational and career choice expectation on Indian students. The data brings a unique testing tool for risk and goals adding to rational choice theory experiments.