Patience Is A Virtue: The Effect Of Students' Time Preferences On Their Academic Results

Y H. Cheung
Edith Cowan University

Margaret Giles
Edith Cowan University, m.giles@ecu.edu.au

Jacqui Whale
Edith Cowan University

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Patience is a Virtue: The Effect of Students’ Time Preferences on Their Academic Results

YH Cheung
Margaret Giles
Jacqui Whale
School of Accounting, Finance and Economics,
Faculty of Business and Law,
Edith Cowan University

Let’s do a survey 😊

• Read the information sheet
• Now do the survey

What does the survey reveal?

• Consistency?
  – Once the switch is made, it stays
  – Some of us switch early
    • On or before statement 5
    • On or before statement 10
    • Paid 7 months from now: $x for all statements
  – Some of us switch later
    • On or before statement 15
    • On or before statement 20
  – Some of us never switch
    • Paid one month from now: $54 for all statements

What does this mean?

• Switching early:
  – high discount rate
  – high rate of time preference
  – impatient
• Switching later:
  – low discount rate
  – low rate of time preference
  – patient

What does this mean for our students?

• Expect that:
  – Students with high discount rates will get lower marks
    • More impatient
    • Procrastinate
    • Attend fewer classes
  – Students with low discount rates will get higher marks
    • More patient
    • Get on with tasks
    • Attend more classes
Let’s test this

Data
– Semester one and two 2011
– Economics 1 students
– Lecture 13 in Semester 1 and lecture 4 in Semester 2
– Two metropolitan campuses
– N = 412
  • 191 completed the survey
  • 163 were consistent

<table>
<thead>
<tr>
<th>Switch Item</th>
<th>Survey</th>
<th>Number of the statement at which a switch in the response pattern occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistent</td>
<td>Derived from Survey</td>
<td>If the subject’s choices switch between “Paid one month from now” to “Paid seven months from now” at most once (1); else (0)</td>
</tr>
<tr>
<td>Discount Rate</td>
<td>Derived from Survey</td>
<td>The annual discount rate implied by the decision to switch</td>
</tr>
<tr>
<td>Parents Education</td>
<td>Survey/Student Information Database</td>
<td>Parents’ highest level of education: High School Year 12 or below (0); Bachelor Degree or above (1)</td>
</tr>
<tr>
<td>Age</td>
<td>Student Information Database</td>
<td>Age as at 3 Jun 2011</td>
</tr>
<tr>
<td>Course</td>
<td>Student Information Database</td>
<td>Enrolled course of study: Bachelor of Business (BBus) (1); Other (0)</td>
</tr>
<tr>
<td>Course Average</td>
<td>Student Information Database</td>
<td>Weighted average mark for course of study</td>
</tr>
<tr>
<td>Campus</td>
<td>Student Information Database</td>
<td>JO (1) or ML (0)</td>
</tr>
</tbody>
</table>

Comparison of students who completed the survey (n = 191) with those who didn’t (n = 221)

Students who completed the survey:
• Were slightly older
  – (F = 8.85; p = 0.0031)
• Had higher mark (55% cf 37%)
  – (F = 60.40; p = 0.000),
• Had higher course average (60% cf 48%)
  – (F = 42.39; p = 0.000),
• Attended more tutorials (on average 10 cf 6)
  – (F = 140.75; p = 0.000)
• Had parents with less education (43% cf 59%)
  – (chi sq = 8.3518; p = 0.004).

Comparison of consistent surveys (n = 163) with inconsistent surveys (n = 28)

Students who completed consistent surveys:
• Had higher final marks (58% cf 42%)
  – (F = 18.49; p = 0.000)
• Had a higher course average (68% cf 48%)
  – (F = 24.00; p = 0.000)
• Lived at an address with a higher socio-economic index (IRSAD) score
  – (F = 18.49; p = 0.000)
• Were more likely to be studying part-time
  – (chi sq = 3.0927; p = 0.079)
• Were more likely to be domestic students
  – (chi sq = 8.3288; p = 0.004).
Bivariate Results

- Females, on average, have lower discount rates, interpreted as being more patient.
- Tutorial attendance is negatively correlated with discount rates (higher attendance with lower discount rates).
- Differences in discount rates across other student characteristics are not statistically significant.

Multivariate results

The regression results show that:
- The discount rate is positively correlated with final marks - procrastination is a virtue??
- Enrolment type influences final marks with full-time students having poorer marks on average
- Tutorial attendance influences final marks with final marks increasing with attendance

The Grasshopper and the Ants by Aesop

One fine day in winter some Ants were busy drying their store of corn, which had got rather damp during a long spell of rain. Presently up came a Grasshopper and begged them to spare her a few grains, "For," she said, "I'm simply starving."

The Ants stopped work for a moment, though this was against their principles. "May we ask," said they, "what you were doing with yourself all last summer? Why didn't you collect a store of food for the winter?" "The fact is," replied the Grasshopper, "I was so busy singing that I hadn't the time."

"If you spent the summer singing," replied the Ants, "you can't do better than spend the winter dancing." And they chuckled and went on with their work.