Abstract

This study tests the efficient market hypothesis (EMH) in the bookstore market. According to the EMH, the same product for the same use should have the same price level. I use paired-sample t-test, ANOVA, and OLS regression to examine whether the bookstore market satisfies the EMH. The result shows that the bookstore market at WSU is not an efficient market. One possible reason is that buy-back options have a high risk due to the possibility that the bookstore may not buy the books back at the end of the semester. Future research can focus on the study of that risk. The EMH is mainly used in stock market.

4. Econometric Methods

- Paired-sample T-test:
  - Hypothesis: The mean of the rental prices of both new books and used books is equivalent to the mean of the Gap Prices of both new books and used books.
  - Regression:
    \[ y_1 = \beta_0 + \beta_1N + \beta_2R + \beta_3(N*R) + \epsilon \]
    \[ y_2 = \beta_4 + \beta_1N + \beta_2R + \beta_3(N*R) + \beta_4Ed + \beta_5En + \epsilon \]

5. Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Abbreviation</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Min</th>
<th>Max</th>
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</thead>
<tbody>
<tr>
<td>Prices</td>
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<td>$39.21</td>
<td>$-25.80</td>
<td>$190.35</td>
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<td>Enrollment</td>
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<td>75.14</td>
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<td>458</td>
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<td>Edition</td>
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<td>5.77</td>
<td>4.03</td>
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<td>0.50</td>
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<tr>
<td>New</td>
<td>N</td>
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<td>0.50</td>
<td>0</td>
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</tbody>
</table>

Data collection

<table>
<thead>
<tr>
<th>Book Name</th>
<th>Condition</th>
<th>Rental Price</th>
<th>Sale Price</th>
<th>Buy-back Price</th>
<th>Gap Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Languages &amp; Their Speakers Pod</td>
<td>New</td>
<td>$23.32</td>
<td>$26.50</td>
<td>$12.00</td>
<td>$14.50</td>
</tr>
</tbody>
</table>

6. Conclusions

- The bookstore is not an efficient market.
- The Rental Prices are greater than Gap Prices
- Risk:
  - The bookstore may not buy the books back.
  - Students can only know the buy-back prices at the end of the semester.

7. References


