Undergraduate Students’ Entrepreneurial Attitude and Self-employment Intentions: the Conditional Effect of Entrepreneurial Self-efficacy

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ABSTRACT

Purpose – the study aimed at determining the interactive effect of entrepreneurial attitude and self-efficacy on students’ self-employment intentions.

Design/methodology – to attain the purpose of the study, cross-sectional and explanatory research designs were employed. Systematic sampling technique was utilized to collect data from a sample of 458 undergraduate finalists from Makerere and Kyambogo Universities in Uganda. Data were analyzed using Hayes (2018) Process macro version 3.2 (Model 1) with the help of SPSS version 23.

Results – the study indicates that entrepreneurial attitude and self-efficacy significantly and positively influence self-employment intentions. Further, a negative and significant conditional effect of entrepreneurial self-efficacy in the relationship between entrepreneurial attitude and self-employment intentions was established.

Implications – theoretically, the study contributes to the extant literature by providing new insights on the interactive effect of entrepreneurial attitude and self-efficacy on students’ self-employment intentions. We also provide practical implications to educators, curriculum developers, and university management in developing appropriate training tools for students driven by first ascertaining their levels of self-efficacy.

Originality/value – The study provides new insights on the conditional effect of entrepreneurial self-efficacy in the relationship between entrepreneurial attitude and self-employment intentions.

Keywords: Entrepreneurship, Entrepreneurial attitude, Entrepreneurial Self-efficacy, Self-employment intentions, Students, Uganda

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Introduction

Self-employment has been recognized world over as an alternative career option to the unemployed (Bosompem, Dadzie, & Tandoh, 2017; Nabi & Holden, 2008). Self-employment is perceived as a desirable form of economic growth and economic development (Torres et al., 2017) thus an appropriate solution to household poverty (Odewale, Hani, Migiro, & Adeyeye, 2019) unemployment crisis (Baluku, Bantu, & Otto, 2018) and specifically graduate unemployment (Barba-Sánchez & Atienza-Sahuquillo, 2017). The contribution of self-employment is not only limited at the economic level but also accrue benefits at the individual level (Dheer & Lenartowicz, 2018). When one is self-employed, he/she manages own time, is a self-boss, and possibly earns more money (Oghazi, Jung, Peighambari, & Tretten, 2009).

Self-employment intentions (SEIs) are the state of mind that initiates people to opt-in favor of self-employment rather than choosing traditional salary-based employment (Afolabi, Kareem, Okubanjo, Ogunbanjo, & Aninkan, 2017). Today's students are tomorrow's prospective (self) employed persons, and examining their intentions to choose self-employment as a career is essential to creators of both educational and economic policies (Boukamcha, 2015). This career choice is not in favor of young graduates who observe self-employment as their second or even last choice of employability (Ismail, 2015; Ismail, Jaffar, & Hooi, 2013).

According to Eurostat of 2013, 60 percent of the young European self-employed have no university education, and only 16.3 percent completed higher education. Similarly, in low and middle-income countries, 75 percent of the self-employed population has no university education (ILO, 2015). To be specific, Uganda's National Council for Higher Education (2018) indicates that only 18.2% of the graduates of 2015/2016 opted for self-employment. The low level of graduate self-employment could be attributed to low levels of students' SEIs of 18.9%, as the majority, 78.1%, prefer formal jobs (UBOS, 2017).

This study is grounded on the theory of planned behavior, which postulates that people act following their intentions and perceptions of control over the behavior. Intentions are influenced by attitudes toward the behavior, subjective norms, and perceptions of behavioral control (self-efficacy) (Ajzen, 2001). Intention is the motivational factors that influence behavior, as such, the stronger the intention to carry out an activity, the greater the chances that an individual will carry it through (Ajzen, 1991b). This implies that when students' SEIs are high, the greater the chances of pursuing a self-employment career. The empirical literature has proved the direct and indirect impact of TPB constructs on SEIs (Ayalew & Zeleke, 2018; Bosompem et al., 2017; Kolvereid, 2016; Mijoč, Stanić, & Horvat, 2016; Soomro & Shah, 2015). However, despite the moderating effect of self-efficacy as proposed in the theory, research has paid little attention to this aspect. Therefore, the current study sought to fill this gap by determining the moderating effect of entrepreneurial self-efficacy (ESE) on the link between entrepreneurial attitude (EA) and SEIs.

Subsequently, the paper is organized into four sections, whereby the second section presents a theoretical and literature review. The third section describes the methods applied, while the fourth section presents study findings. Lastly, section five presents the discussion, conclusion, implications, and areas for future research.

Literature Review

Theory of Planned Behaviour

TPB by Ajzen (1991b) states that an individual's behavior is determined primarily by the intention of the individual to perform certain behaviors – behavioral intent. The intention is understood as the motivational factors that influence behavior, meaning that the stronger the intention to carry out an activity, the greater the chance an individual will carry it through (Ajzen, 1991b).
The intention in the TPB is the readiness to engage in a given behavior (Ajzen, 2011). Self-employment intention is the intention to start a new business, owning a business, or to be self-employed (Farashah, 2013). The best predictor of entrepreneurial activity or start-up is entrepreneurial intentions (Baluku, Leonso, Bantu, & Otto, 2018). Consequently, self-employment depends on the decision of the person to pursue or not to do so (Majogoro & Mgabo, 2012). According to the theory, attitudes, subjective norms, and behavioral control (Ajzen, 1991a) determines the self-employment preference, which results into business startup and actual involvement in self-employment (Kolvereid, 2016).

Attitude to the conduct is the degree to which an individual has a favorable or unfavorable behavior analysis (Ajzen, 1991b). An entrepreneurial attitude is a degree to which a person has a positive or negative personal assessment of being an entrepreneur (Ajzen, 2001). It involves not only affective ("I like it, it's attractive") but also evaluative ("it has advantages") (Liñán & Rodríguez-Cohard, 2015). Thus, if self-employment is more appealing to students, their intention to work for themselves will be high and vice versa (Ismail et al., 2013; Majogoro & Mgabo, 2012). The empirical literature has found a positive and significant association between attitude and self-employment intentions (See; Alharbi, Almahdi, & Mosbah, 2018; Ayalew & Zeleke, 2018; Mahendra, Djaminka, & Hermawan, 2017; Mijoč et al., 2016; Saraih, Aris, Mutalib, Ahmad, & Amlus, 2018). On this background, the study proposes that

H1: Entrepreneurial attitude has a positive and significant effect on self-employment intentions

According to TPB, Perceived behavioral control is related to the perceived ease or difficulty of performing a particular behavior (Krueger, Reilly, & Carusrud, 2000). In the current study context, this construct reflects entrepreneurial self-efficacy, which is the individual's belief in his/her capability to perform tasks and roles aimed at entrepreneurial outcomes (Shahab, Chengang, Arbizu, & Haider, 2019). According to Bandura (1991), highly self-efficacious people perceive setbacks as learning experiences but not a personal failure, due to their ability to anticipate obstacles that might hinder achieving their goals (Margahana & Negara, 2019).

Similarly, Yıldırım, Çakır, and Aşkun (2016) argue that students with both higher self-efficacy and higher intentions will have a higher probability of engaging in self-employment in future. There exists enough empirical evidence to support a positive link between entrepreneurial self-efficacy and self-employment intentions (See; Schmutzler, Andonova, & Diaz-Serrano, 2018; Shahab et al., 2019; Wang, Chang, Yao, & Liang, 2016). It’s therefore hypothesized that;

H2: Entrepreneurial self-efficacy has a positive and significant effect on self-employment Intentions

Conditional effect of ESE on the link between EA and SEI

Due to scanty literature in this area, this study proposes that entrepreneurial self-efficacy (ESE) moderates the direct relationship between entrepreneurial attitude (EA) and self-employment intentions (SEIs). This proposition is made drawing on the moderation effect of self-efficacy that has been consistently found in related fields. For instance, according to Zhang et al. (2017), self-efficacy has a significantly positive moderating effect on the relationship between perceived usefulness and adoption intention of mobile health services. They also found that Self-efficacy plays an essential role in individuals’ acceptance of mobile health services, which affect their perceived ease of use of mobile health services and positively moderate the effects of perceived usefulness on adoption intention.

According to Yang, Wang, and Lu (2016), social self-efficacy positively moderates the relationship between mobile social networking service enjoyment and mobile social networking service engagement. At the same time, Jimmieson (2000) asserts that self-efficacy moderates the main effects of work control on job satisfaction. Chen (2015) also concludes that general self-efficacy shows an enhancement moderating effect, such that it amplifies the mediated relationship between supervisor support and innovative employee behavior via intrinsic motivation. Such results are not different from Brown et al. (2001), who found that combined
effects of information seeking and self-regulatory were moderated by self-efficacy, such that high self-efficacy employees were able to effectively use the combination of inquiry and monitoring to clarify role expectations, whereas low-self efficacy employees were not. Therefore, the moderating effects of ESE in this study are anticipated based on previous studies from related fields that have continuously found both the direct and indirect moderating effects of self efficacy. Hence;

H3: ESE has a significant moderating effect on the relationship between EA and SEI

Methodology

Research Design, Population, and Sample Size

The study employed cross-sectional and quantitative research designs to collect and analyze data. The study population was 6,408 undergraduate finalists in the academic year 2019/2020, from which a sample of 458 was drawn. The sample size was determined using (Yamane, 1973) formula at a 95.5 confidence level, thus 4.5 margins of error. Out of 458 questionnaires distributed, 399 questionnaires were returned, therefore a response rate of 87%. However, 07 were outliers, while 04 questionnaires were not properly filled. These were excluded from the analysis leaving 388 usable questionnaires.

Sampling procedure

The study used a multistage sampling technique to collect data from two selected universities that is Kyambogo and Makerere universities. The sample size was proportionately distributed among the two universities and, thereafter, among the chosen faculties/colleges. At the next stage, the faculties/colleges population was divided by the respective proportionate sample size to determine the Kth number, which was followed to identify the final respondents for the study. A sampling frame was obtained from the selected faculties/colleges on which the interval was applied. Only willing participants were considered as those who declined were replaced. Questionnaires in the English language were physically distributed during common courses.

Measurements

Self-employment Intentions were measured by modifying 10 items of Liñán and Chen (2009) and Kim-Soon, Ahmad, and Ibrahim (2014). Sample items included; “I am ready to do anything to startup my own business,” “I will make every effort to start and run my own business,” and “I am determined to create a firm in the future.” Entrepreneurial Attitude has been measured by adopting and modifying semantic differential items that assess attitudes using bipolar evaluative adjectives; “To me, being self-employed is;” Good-Bad, wise-foolish, enjoyable-not enjoyable, beneficial-not beneficial, pleasant-unpleasant, success-failure (Ajzen, 2013; Hennessy, Bleakley, & Fishbein, 2012). Entrepreneurial Self-efficacy was measured by adapting 17 Items (De
Noble, Jung, & Ehrlich, 1999; Shook & Bratianu, 2010). Sample items include; “I can work productively under continuous stress, pressure, and conflict,” “I can originate new ideas and products.” “I can develop and maintain favorable relationships with potential investors.” Measurement items were all anchored on a 7-point scale. Control variables included gender, age, program offered, and family background in terms of self-employed or employed parents/guardians.

Data analysis

The collected data were coded with the help of Statistical software for Social Science (SPSS, version 23). The analysis generated descriptive statistics, as well as correlation statistics. Descriptive statistics were compiled with the help of univariate analysis, while statistical correlations were performed using the Pearson Product-Moment Correlation test. Lastly, hypotheses were tested using hierarchical regression and Hayes’s (2018) PROCESS Macro 3.2 (Model 1).

Participant’s Profile

Students’ profiles in terms of gender, age, program offered, and family background was captured. Results demonstrate that most of the respondents were female, 50.8%, while 49.2% were male. For the age of the respondents, the majority, 88.9%, were between the age of 20-25, followed by 26 – 30, who were 9.3%, then above 30 years at 1%, and finally, only 0.8% were below 20 years. With the program offered, most students 72.2% offered business programs while 27.8% provided non-business programs. Lastly, most of the students’ parents or guardians, 62.6%, are self-employed, and only 37.4% are employed.

Descriptive, Reliability and Pearson Correlation results

Results in table 1 indicate that EA had the highest mean of 6.277 and .717 standard deviation. On the other hand, ESE registered the lowest mean of 5.830 and a standard deviation of .787. Internal consistency for the research instrument was also tested. All the study variables’ reliability meant the cutoff of .7 (Nunnally, 1978) with Cronbach alpha of .845, .957, and .930 for SEI, EA, and ESE, respectively. Lastly, Pearson correlation results show that there is a positive and significant relationship between the study variables. SEI with EA r = .568, p < .01, ESE with SEI r = .556, p < .01, and EA with ESE r = .521, p < .01.

Table 1: Descriptive, Reliability and Pearson Correlation results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Reliability</th>
<th>SEI</th>
<th>EA</th>
<th>ESE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-employment intention (SEI)</td>
<td>5.975</td>
<td>.877</td>
<td>.845</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial attitude (EA)</td>
<td>6.277</td>
<td>.717</td>
<td>.957</td>
<td>.568*</td>
<td>.521*</td>
<td></td>
</tr>
<tr>
<td>Entrepreneurial self-efficacy (ESE)</td>
<td>5.830</td>
<td>.787</td>
<td>.930</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Results

Hierarchical regression analysis was run to determine how the predictor variables affect the dependent variable (SEI). Results in table 2 model 1 reveal that among the control variables, gender and family background have a significant and positive effect on SEI \( \beta = .296, p < .01 \) and \( \beta = .253, p < .01 \) respectively. This model explains .057 variance, \( F = 5.815, P<.001 \). In model 2, SEI was predicted using EA while controlling for the covariates. Results show that EA has a positive and significant influence on SEI \( \beta = .783, p<.001 \) while gender and family background remained significant \( \beta = .251, p < .001 \) and \( \beta = .179, p < .05 \) respectively. This model accounts for the change in variance of .404 and \( F \) change=289.351, \( P<.001 \). Finally, we controlled for the covariates and EA while determining the predictive effect of ESE on SEI. Results show a positive and
significant influence $\beta=.352$, $p<.001$. This model explains a .068 change invariance and $F$ change=54.912, $p<.001$. Based on these results, $H1$ and $H2$ are supported.

Table 2: Regression results

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1 (SEI)</th>
<th>Model 2 (SEI)</th>
<th>Model 3 (SEI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$ t</td>
<td>$\beta$ t</td>
<td>$\beta$ t</td>
</tr>
<tr>
<td>Constant</td>
<td>5.615*** 20.254</td>
<td>.857* 2.452</td>
<td>.326ns .973</td>
</tr>
<tr>
<td>Gender</td>
<td>.296** 3.282</td>
<td>.251*** 3.674</td>
<td>.201** 3.126</td>
</tr>
<tr>
<td>Age</td>
<td>-.016ns -</td>
<td>-.043ns -</td>
<td>-.473 -.123ns -1.413</td>
</tr>
<tr>
<td>Program</td>
<td>.109ns 1.082</td>
<td>.065ns .856</td>
<td>.031ns .427</td>
</tr>
<tr>
<td>Family</td>
<td>.253** 2.708</td>
<td>.179* 2.553</td>
<td>.136* 2.044</td>
</tr>
<tr>
<td>EA</td>
<td>- -</td>
<td>.783*** 17.010</td>
<td>.580*** 11.353</td>
</tr>
<tr>
<td>ESE</td>
<td>- -</td>
<td>- -</td>
<td>.352*** 7.410</td>
</tr>
<tr>
<td>R Square</td>
<td>.057</td>
<td>.404</td>
<td>.068</td>
</tr>
<tr>
<td>$F$ change</td>
<td>5.815*** 289.351***</td>
<td>54.912***</td>
<td></td>
</tr>
</tbody>
</table>

Note: *$p<.05$, **$p<.01$, ***$p<.001$, ns = not significant, SEI= self employment intention

Conditional effect of ESE on EA and SEI

To test for $H3$, Hayes’ PROCESS Macro Model 1 (Hayes, 2018) was run at 5000 bootstrapped samples while controlling for the covariates. Bias corrected results indicate that ESE negatively and significantly moderates the relationship between EA and SEI $\text{coef}=-.168$, $CI=-.246,-.090$ while gender and family background remained significant coef$=.181$, $p<.01$ and coef$=.153$, $p<.01$ respectively. The overall model explains 55.2% variance with the $R^2$ of .552, $p<.001$. Thus $H3$ was supported.

Table 3: Conditional effect of ESE on EA and SEI

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coeff</th>
<th>SE</th>
<th>T</th>
<th>P</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-5.030</td>
<td>1.306</td>
<td>-3.852</td>
<td>.000</td>
<td>-5.598</td>
<td>-2.462</td>
</tr>
<tr>
<td>EA</td>
<td>1.486</td>
<td>.244</td>
<td>5.602</td>
<td>.000</td>
<td>.886</td>
<td>1.844</td>
</tr>
<tr>
<td>ESE</td>
<td>1.365</td>
<td>.220</td>
<td>6.766</td>
<td>.000</td>
<td>1.054</td>
<td>1.918</td>
</tr>
<tr>
<td>int_1(EA X ESE)</td>
<td>-.168</td>
<td>.040</td>
<td>-4.237</td>
<td>.000</td>
<td>-.246</td>
<td>-.090</td>
</tr>
<tr>
<td>Gender</td>
<td>.181</td>
<td>.063</td>
<td>2.873</td>
<td>.004</td>
<td>.057</td>
<td>.305</td>
</tr>
<tr>
<td>Age</td>
<td>-.134</td>
<td>.085</td>
<td>-1.572</td>
<td>.117</td>
<td>-.300</td>
<td>.033</td>
</tr>
<tr>
<td>Program</td>
<td>-.002</td>
<td>.071</td>
<td>-0.23</td>
<td>.981</td>
<td>-.1.40</td>
<td>.137</td>
</tr>
<tr>
<td>Family background</td>
<td>.153</td>
<td>.065</td>
<td>2.347</td>
<td>.019</td>
<td>.025</td>
<td>.281</td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.552</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td></td>
<td>66.968***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further, the results in table 4 present the conditional effect of EA on SEI across ESE values. Results indicate that at low values (5.043) of ESE, the effect of EA on SEI is high and significant $\beta=.640$, $p<.001$, while at high values of ESE (6.617), the effect of EA on SEI significantly reduces $\beta=.375$, $p<.001$. Therefore, the negative interaction of EA and ESE on SEI implies that in the circumstance where students have high confidence in their entrepreneurial abilities, efforts to stimulate their EA will result in a low effect on their SEI. Figure1 further supports these results.

Table 4: Conditional effect of EA on SEI at different values of ESE

<table>
<thead>
<tr>
<th>ESE</th>
<th>Effect</th>
<th>SE</th>
<th>T</th>
<th>P</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>
Discussion

The study results demonstrate that EA positively and significantly influences SEI. This implies that a unit change in EA results in .783 changes in students’ SEI. Our results concur with the findings of earlier studies. For example, Alharbi et al. (2018); Saraih et al., (2018) demonstrates that attitude towards behavior is the main predictor of self-employment intentions. Similarly, Robledo, Arán, Sanchez, and Molina (2015) present that Spanish university students with a positive attitude towards creating a new firm were inclined to become entrepreneurs once they completed their studies. Besides, Tognazzo, Gianecchini, and Gubitta (2017) found that personal attitude affected Entrepreneurial intention among university students in Italy. Also, it is confirmed that entrepreneurial attitude is significantly related to Entrepreneurial Intention among international university students in Turkey (Usman, 2019).

The study also reports a .352 significant effect of ESE on SEI; this implies that a unit change in ESE brings .352 changes in SEI. Therefore, it is argued that student's SEI is enhanced by providing meeting their entrepreneurial competence expectation from which they will develop ESE. A robust body of research supports the link between ESE and SEI which the current study reports (Margahana & Negara, 2019; Schmutzler et al., 2018; Wang et al., 2016; Yildirim et al., 2016).

Lastly, we report a negative interaction of EA and ESE on SEI. This implies that in a circumstance where students have high confidence in their entrepreneurial abilities, the effect of EA on SEI will reduce. Despite the moderating effect, such results rest at the opposite end as earlier studies report a positive moderating effect of self-efficacy. For example, Zhang et al., (2017) present that self-efficacy enhances the relationship between perceived usefulness and adoption intention of mobile health services. On the same note,
Yang et al. (2016) reveal that social self-efficacy positively moderates the relationship between mobile social networking services enjoyment and mobile social networking services. Such results are not different from Brown et al., (2001) who asserts high self-efficacy employees can effectively use the combination of inquiry and monitoring to clarify role expectations, whereas low-self efficacy employees were not.

**Conclusion**

This study aimed at determining the conditional effect of EA and ESE on SEI among Ugandan undergraduate finalists. We present a positive and significant direct effect of EA and ESE on SEI. Further, maiden evidence of the buffering effect of ESE on the link between EA and SEI is revealed. The nature of our moderation results implies that in the circumstance where students have high confidence in their entrepreneurial abilities, EA will be of less influence to the development of self-employment intentions.

**Implications**

Our study provides several contributions to academicians, academic institutions, and policymakers. The study contributes to the extant literature by providing new insights on the interactive effect of entrepreneurial attitude and self-efficacy on students’ self-employment intentions. The study also supports literature on the direct effect of entrepreneurial attitude and self-efficacy on self-employment intentions.

The findings of the study also have managerial implications for educators, curriculum developers, and university management in developing appropriate training tools for students. Since results show that at lower levels of ESE, the effect of EA on SEI is high while at high levels of ESE the effect of EA on SEI is insignificant. This calls for students' entrepreneurial self-efficacy assessment before subjecting students to SEIs stimulation using EA. Otherwise, where students have high ESE such endeavors will be less or not fruitful.

**Limitation and Future Direction**

We limited our study to undergraduate finalists from only two public universities. This may not be representative enough for the entire students’ population and generalizability of results. Future research could focus on private universities, other tertiary institutions like colleges and polytechnics, high schools, and youth population other than students. Investigating one moderator is another limitation; the study therefore recommends future researchers to explore other conditions under which self-employment intentions can be developed. Lastly, the study was purely cross-sectional and quantitative. Therefore, future research could employ a longitudinal and mixed approach to further explore how SEI evolves, that is pre, during, and post entrepreneurial course.

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**Conflicts of Interest:** The authors declare no conflict of interest.

**References**


