The Role of Entrepreneurial Self-Efficacy in Resources Acquisition in a New Venture: The Mediating Role of Effectuation

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Abstract
The present study aims to explore the role of entrepreneurial self-efficacy (ESE) concept with a combination of an effectuation concept. First, it examined the effect of ESE on resources acquisition in a new venture in an emerging country’s context. Second, it attempted to use effectuation principles, namely, affordable loss, set of means, and precommitment as mediators in a relationship between ESE and resource acquisition in a new venture. A sample of 462 agro-processing entrepreneurs is explicitly surveyed and interviewed. The hierarchical regression and structural equation model were employed to analyze the data. Results showed that an ESE has a significant positive effect on the venture’s resources acquisition ability. Moreover, results showed that the effect of ESE in resource acquisition is manifested through affordable loss, precommitment, and set of means principles. Theoretically, this study extends the knowledge on the mediating role of effectuation principles using ESE in pursuing essential venture functions such as resources acquisition.

Keywords
effectuation, resources acquisition, entrepreneurial self-efficacy

Introduction
Entrepreneurial self-efficacy (ESE) refers to the strength of an individual’s belief and its capability of performing the role, which are entrepreneurial related successfully (Boyd & Vozikis, 1994). In the field of entrepreneurship, ESE is suggested as an essential attribute possessed by entrepreneurs because it helps them to translate uncertain business environments into opportunities. At the same time, people without ESE perceived the same situation as an obstacle (Khodabakhshi, 2012). The literature indicates that ESE positively impacts venture goals (Baum & Locke, 2004; Erikson, 2002), venture intention (Austin & Nauta, 2015; Bullough et al., 2014; Fuller et al., 2018; Laguna, 2013; Murugesan & Jayavelu, 2017; Wilson et al., 2007), and venture growth (Baum & Locke, 2004; Kickul et al., 2009). However, while ESE is explained as a task-specific construct (Bandura, 1982; Barbosa et al., 2007; Gibbs, 2009), prior studies investigated its effect on venture activities in general. On the contrary, Brush et al. (2001) suggested that resources acquisition is a crucial task at the establishment and survival of a new venture (NV) stage. It is a period in which ventures suffer the liability of newness. Thus, venture survival often depends on the ability to overcome or compensate for the liabilities of newness (Morse et al., 2007). Therefore, the literature described ESE in the successful launching of new business (McGee et al., 2009), as well as resources search and investors’ persuasion (Kickul et al., 2009). Also, the tasks suggested to be influenced by ESE, such as launching a business (McGee et al., 2009), risk-taking and innovation (Chen et al., 1998), are facilitated by resources acquired (Vanacker et al., 2011). However, despite the importance of resources acquisition task, there are few studies that explicitly associated ESE with a specific task such as resources acquisition. For example, Kickul et al. (2009) revealed two distinct cognitive styles

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(intuitive cognitive and analytic cognitive) as determinants of perceived ESE. Still, only analytic cognitive was associated with marshaling of resources and persuading investors, which provided inconclusive findings as it could not clarify how these resources are acquired. Therefore, the present study aimed to fill the gap found by investigating the role that ESE plays in resources acquisition.

Moreover, entrepreneurs’ initial decisions in early NV are made in the face of uncertainty, which renders predictive decision-strategies largely inadequate (Sarasvathy, 2009; Sarasvathy & Kotha, 2001). An entrepreneur with self-efficacy who has acquired skills and task competencies from the past performance may enhance his or her ESE, which contributes to higher aspirations and future performance of an NV in any situation (Bandura, 1977; Herron & Sapienza, 1992). In the same manner, effectuation associates with entrepreneurs who have experience in previous routines and ready to use nonpredictive decision-strategies in NV in case of obstacles (Sarasvathy, 2009). Thus, both ESE and effectuation concepts consider an entrepreneur who possesses the ability to establish an NV in an uncertain environment. To fulfill an earlier argument, we suggest and hypothesize the effect of ESE in resources acquisition transmits via a set of means, precommitment, and affordable loss principles from effectuation theory. Thus, the relationship between an ESE and resources acquisition ability may be mediated. The current research contributes to the ESE and effectuation literature on the entrepreneurship field in two ways. First, it provides insights on the connection between ESE and entrepreneurs’ resources acquisition by investigating the mediation process contrary to previous studies (Austin & Nauta, 2015; Bullough et al., 2014; Fuller et al., 2018; Murugesan & Jayavelu, 2017). Second, this work contributed to the effectuation and self-efficacy theories to enhance the role played by the entrepreneurs on searching funds, attracting stakeholders, and persuading other entrepreneurs to collaborate in venture establishment.

**Literature Review**

For an entrepreneur to obtain access to resources often involves asking other people or companies for money, labor, and effort for a venture with an unpredictable future (Dubini & Aldrich, 1991; Fong & Chen, 2007; Hellmann, 2007; Mori & Richard, 2012). In the early stages of an NV development, essential activities include the identification and acquisition of resources rather than deployment or allocation of activities for a venture success (Brush & Chaganti, 1999; Lichtenstein & Brush, 2001; Mallon et al., 2018; Zimmerman & Zeitz, 2002). Resources acquisition is an important task, which helps entrepreneurs to fulfill their goals. However, regarding the liabilities of newness, an NV may not have the means to acquire all the resources needed (Coviello & Cox, 2006). Thus, it needs other sources to generate enough funds for venture creation. The resources dependency theory (Davis & Adam Cobb, 2010; Pfeffer & Salancik, 2003) provides a theoretical description of the behavior of individuals and organizations in the resources exchange relationship. The joint dependence approach from resources dependence theory views interdependence between actors in the resources exchange process as a positive method toward developing a sustainable relationship (Hillman et al., 2009).

However, to achieve the resources acquisition task, ventures need entrepreneurs with an ability (ESE) to persuade investors and stakeholders to fulfill resources requirements (Kickul et al., 2009; Sarasvathy, 2009). ESE strengthens a person’s belief that he or she is capable of successfully performing the various roles and tasks of entrepreneurship (Chen et al., 1998). ESE forms with cognitive abilities that influence an individual to prefer a different type of resources gathering, information processing, and decision making, which are critical abilities confronting entrepreneurs on a daily basis (Kickul et al., 2009). Thus, ESE enables an entrepreneur to direct their intention to a specific task and reduce the extent to which this individual focuses on other activities. Using the analysis cognitive style, which is one of ESE’s determinants, gives the entrepreneur an intention to seek finance, persuading other entrepreneurs to collaborate and attract investors. ESE concept incorporates personality and environmental factors (Boyd & Vozikis, 1994) such that despite uncertainty and limited resources, people with high self-efficacy commence and persist in their activities and behaviors (Hmieleski & Baron, 2008; Trevelyan, 2009). Therefore, ESE is one’s capability and skill to accomplish business start-up–specific activities such as resources acquisition (Kickul et al., 2009). Based on this, we defined the ESE construct as an essential factor in resources acquisition during an NV establishment.

Effectuation suggests a theoretical framework explaining how expert entrepreneurs use resources within their control and cooperating with commitments and constraints from self-selected stakeholders to produce new artifacts such as ventures, products, opportunities, and markets (Sarasvathy, 2001; Wiltbank et al., 2006). Effectuation is proposed by Sarasvathy and Kotha (2001) and later received support from competitive studies. Fisher (2012) argued that effectuation is one of the few viable alternative theoretical perspectives describing entrepreneurial action differently from causal logic. However, effectuation is stated as a dynamic process with two concurrent cycles of acquiring resources and constraining goals. The first is an expanding cycle that multiplies the resources available to the venture, and the second accretes constraints on the venture that converge into specific goals over time (Dew et al., 2009; Sarasvathy et al., 2008). The effectuation concept consists of principles that differ as they dwell on different cognitive processes and behaviors (Arend et al., 2015; Palmié et al., 2018). Effectuation principles have differences in their application and implications (Palmié et al., 2018), which provide room for effectual decision-makers to choose to utilize.
the entire set of principles or just a few of them. Therefore, they can only focus on selective principles that they believe fit their situation (Engel et al., 2017). However, there is little understanding of the role of effectuation in resources acquisition in an NV. The present study assessed the affordable loss, set of means, and precommitment as the effectuation principles that help in the process of acquiring resources in an NV. Other principles, such as flexibility and experimentation, are beyond the objective of the present study. In the context of the study, affordable loss refers to finding ways to reach the market(s) with minimum expenditures of resources rather than investing in calculations about expected returns (Sarasvathy, 2001; Sarasvathy et al., 2008). Set of means describes the means owned by an entrepreneur and categorized as “who he or she is” (traits), “what he or she knows” (knowledge), and “who he or she knows” (networking), which help to generate potential opportunity (Sarasvathy, 2001, 2009). Precommitment denotes the formation of partnerships in the process of creating new opportunities to expand means and share risk (Brettel et al., 2012; Chandler et al., 2011). The present study’s conceptual framework is shown in Figure 1.

Figure 1. Conceptual framework.

**Hypotheses Development**

**ESE and Resources Acquisition**

The prior studies suggested that individuals with ESE can manage key tasks involved in the establishment of an NV (Baum & Locke, 2004; Chen et al., 1998), whereby resources acquisition is one of the key tasks for NV establishment and survival (Brush & Chaganti, 1999; Lichtenstein & Brush, 2001; Mallon et al., 2018). Entrepreneurs with self-efficacy can connect their efforts with resources’ sources (Shane, 2003). For example, the study by Bratkovič et al. (2012) argued that the accomplishment of a specific task depends on entrepreneurs’ skills and efforts, that is, ESE. The understanding mentioned above is reinforced with the study by Kickul et al. (2009) that entrepreneurs with self-efficacy (analysis cognitive) have the ability to search for finance and attract stakeholders. Bandura and Wessels (1997) and Chen et al. (1998) suggested that the higher the self-efficacy, the higher the resources acquisition ability. In this regard, an entrepreneur with specific self-efficacy, which guides him or her to attract investors and persuade others to collaborate and to seek finance, demonstrates the ability for resources acquiring. This information summarizes this understanding into the following hypothesis:

**Hypothesis 1 (H1):** ESE positively affects resources acquisition.

**The Mediating Role of the Set of Means**

Entrepreneurs with self-efficacy can perform NV tasks such as resources acquisition, as suggested by Bandura and Wessels (1997) and Kickul et al. (2009). The prior studies described that ESE contains past skills, experience, and persistence to perform the task given in any environment (Bandura & Wessels, 1997; Boyd & Vozikis, 1994). It means
an individual with self-efficacy can work in any obstacle situation to expand the resources base (set of means; Kickul & D’Intino, 2005; Kickul et al., 2009). Therefore, based on their ability in hand (set of means) and ability to face the environment (networking), they can connect with stakeholders as suggested by Bratković et al. (2012). Thus, entrepreneurs with self-efficacy can connect with a set of means, both internal (skills and experience) and external (networking). The set of means dimension in our study focuses on the “who I know” or means that are resident and available within the firm’s stakeholder network following Roach et al.’s (2016) study. In this regard, ESE can introduce themselves to the network and acquire resources needed (Bratković et al., 2012). Based on these arguments, the second hypothesis of this study is the following:

**Hypothesis 2 (H2):** The effect of ESE on resources acquisition capability is mediated positively by a set of means.

**The Mediating Role of Precommitment Principle**

Precommitment is suggested as mediation in a relationship between ESE and resources acquisition in the present study. Precommitment is described as the formation of partnerships in the process of creating new opportunities to expand means (such as resources) and share risk (Brettel et al., 2012; Chandler et al., 2011). Entrepreneurs with self-efficacy in an NV use venture’s board of directors (for example) who may include a representative of venture capital firms that have a stake in the venture and angel investors as an important category of external advisors for many entrepreneurs (Forbes, 2005). These willing partners can be relatives, family (Shane, 2003), angel investors (Wiltbank et al., 2009), and venture capitalists. These are assumed to be stakeholders who bring their efforts such as values, knowledge, physical resources, and commitment to the venture in advance (Wiltbank et al., 2009). They possess kinds of resources that would otherwise be acquired outside the venture. These are people who are attracted to individuals who possess the skills and capabilities to which they aspire (Gist & Mitchell, 1992). The entrepreneurial attribute such as ESE has demonstrated evidence of increasing the social capital for individuals who possess them, which helps them in acquiring resources (Kickul et al., 2009) and the success of the NV (R. Baron, 2007). This study summarizes this understanding into the following hypothesis:

**Hypothesis 3 (H3):** The effect of ESE on resources acquisition is mediated positively by the precommitment principle.

**The Mediating Role of Affordable Loss Principle**

Affordable loss refers to finding ways to reach the market(s) with minimum expenditures of resources (Sarasvathy, 2009). In this process, entrepreneurs are committed to bringing what they can afford to lose (Sarasvathy, 2001, 2009). Their ability to deal with the outside environment results in inviting stakeholders who can commit their resources. An ability to obtaining the required level of funding is an important determinant for starting an NV (Kannadhasan et al., 2018). Therefore, entrepreneurs with self-efficacy perceived to possess skills/abilities to face challenges and obstacles that are associated with an NV (Bandura & Wessels, 1997). For example, DeNoble et al. (2007) suggested that the successor of a family business is expected to have self-efficacy, which helps control resources. The affordable loss principle through control of resources is characterized by three heuristics suggested by Sarasvathy (2009). First, the participating entrepreneurs can invest what they can afford and survive a total loss. Second, these entrepreneurs imagine creative means to get things done with zero resources. Third, they work by considering the cheapest to the highest cost options (Sarasvathy, 2009). This approach can be achieved by not buying what they can rent, by not renting the resource they can borrow, and by considering what they can get for free first (Wiltbank et al., 2009). In this manner, entrepreneurs with self-efficacy contain these heuristics, that is, persuade investors and acquire resources (Kickul et al., 2009) as well as resources control to achieve an NV outcome (DeNoble et al., 2007). This information suggests that the ability to acquire and control resources possessed by entrepreneurs with self-efficacy gives an NV chance for more resources. Therefore, the present study summarizes this understanding in the following hypothesis:

**Hypothesis 4 (H4):** The effect of ESE on resources acquisition capability is mediated positively by the affordable loss.

**Method**

**Study Context**

In the current emerging economies countries such as Tanzania, the involvement of entrepreneurial ventures to the economy depends on the type and quantity of resources they access or acquire (Cai et al., 2018; Das & Teng, 2000; Parhankangas & Ehrlich, 2014). Therefore, the ability of entrepreneurial ventures to access the right quantity of appropriate resources is essential not only in ventures (Shane, 2003) but also to the economic development of the areas where these ventures operate. Unfortunately, in a country like Tanzania, NVs are experiencing inadequate financial resources despite the effort to develop a manufacturing industry (Dinh & Monga, 2013; Kweka, 2018). The situation is caused by a lack of collaterals and information asymmetry (poor documentation by the borrower; Kesale, 2017; Kira & He, 2012; Mori & Richard, 2012), which are considered as important factors by financial institutions (Makorere, 2014).
Most financial institutions consider NVs as risky businesses with uncertainty futures and end up providing a short-term loan with a higher interest rate (Mori & Richard, 2012). As a result, most NVs lend money via families, friends, angel investors, and credit groups, which provide insufficient funds for ventures to grow and survive (Olomi, 2009).

Study Design

The study adopted a survey research design that aligned with several extant studies by Deligianni et al. (2015) and Guo (2019) to enhance the variability of our results. We gathered the data for this study from Tanzania’s NV. We were motivated to get our survey data from Tanzania based on the information that Tanzania’s business is volatile and uncertain, which suggested to be unfavorable for NV progress. This information is backed up with recent research that highlighted Tanzania’s institutional environment deficiencies such as corruptions, fragile and underperformed financial market (Cooksey & Kelsall, 2011; Hansen et al., 2018; Kessy & Temu, 2010). We, therefore, employed a structured questionnaire completed by the ventures’ founders during the personal meeting. In this kind of venture, it was impossible to find secondary data and, therefore, we relied on only primary data for our analysis. The data collection instrument was piloted to 30 respondents in each sample to assess its appropriateness and relevance before administering to all respondents. We followed a general rule of thumb recommended by Browne (1995) which says 30 respondents or more can estimate a parameter. After a pilot survey, we encountered some problems that needed us to rephrase some questions. After the modifications, we tested a questionnaire again, which, at last, reached the final quality that we concluded as reasonable for the study.

Sample and Data Collection

This study used domestically owned ventures that belong to the small-scale agro-processing industry with entrepreneurs who are involved in sunflower oil processing, cereal milling, fish processing, dairy, and food beverage processing. These ventures were established and managed by individual entrepreneurs, and we considered only ventures which had been in operation for at least 7 years or less. The rule of thumb for an NV is 7 years or less in line with Ireland and Webb (2007), Roach et al. (2016), and Zahra et al. (2000). The agro-processing industry was chosen based on the two facts: First, it accounts for more than half (55%) of Tanzania’s manufacturing output (Dinh & Monga, 2013; Kweka, 2018). The study is based in small firms because the recent (2013) Census of Industrial Statistics report published that Tanzania has a total of 53,876 firms. Still, over 85% are micro-enterprises and medium (Kweka, 2018). Second, it has been a targeted industry in the Integrated Industrial Development Strategy 2025 (Dinh & Monga, 2013). Respondents were randomly selected from the Tanzania Private Sector Fund’s (TPSF) directory of small and medium-sized ventures. To reduce possible bias, caution was exercised to minimize distortion problems by interviewing major participants who had intimate knowledge of the ventures (Kumar et al., 1993), in line with Deligianni et al.’s (2015) study. We mailed a questionnaire and cover letter for a brief introduction of how important the study was. The follow-up started by phone calls, which helped to have face-to-face meetings, the process which took 6 months for the number of the questionnaire we distributed. A total of 762 entrepreneurs were contacted, of which 482 respondents (63.25%) met our research team, filled the questionnaires, asked for more clarification in the area they found difficult to understand, and returned the questionnaires. The questionnaires were rejected if there were deficiencies in some important variables that were crucial for the study. The remaining questionnaires met the q: n rule, which allows 10 observations per one item (Jackson, 2003).

Measures

Dependent variables. Resources acquisition is a dependent variable for assessing a stakeholder’s commitment to the venture through funds raised. We asked respondents to indicate the amount of money received from different contacts and then added it up to get the total amount of finances raised. This work evaluated the ability of entrepreneurs to acquire resources from potential committed stakeholders by using three items, such as “What is the average amount of financial resources you obtained from your stakeholders in the past 3 years?” The items were measured on a 7-point scale, with options ranging from 1 = less than 10 million to 7 = more than 50 million. The rate was 1US$ = 2,000Tshs. The items were adapted from Renzulli and Aldrich (2005) and applied after careful re-validation. The Cronbach’s alpha scores for the resources acquisition was .837, indicating satisfactory construct reliability (CR).

Independent variables. The ESE was applied as an independent variable. ESE is crucial in this study because of its task-specific nature, which includes the confidence (control belief) that an entrepreneur has to deal with the external environment when operating an NV (Mateja et al., 2010). Ten items of ESE were adapted from Schwarzer et al. (1997). The Cronbach’s alpha score for the construct was .840, indicating good CR. Therefore, we managed to validate the assumption suggested. One item was disqualified after loading the lowest value and after appearing to affect the Cronbach’s results.

Mediator variables. The set of means reflects the knowledge corridor they are in and the social network they are associated with Sarasvathy and Kotha (2001). In line with Roach
et al. (2016), the present study used a networking to present the relationship that the entrepreneur has with external stakeholders. Four items, including “Our networks contribute significantly to our ability to reconfigure our opportunities,” were employed (Roach et al., 2016; Walter et al., 2006). The sentences were carefully changed, but the means were retained. A 7-point Likert-type scale, anchored as 1 = not at all to 7 = very much, was used. The Cronbach’s alpha for this variable was .740, indicating good reliability of the items.

Precommitment. Three items, including “We used a substantial number of agreements with customers, suppliers, other organizations and people to reduce the amount of uncertainty,” were employed to measure precommitment. The Cronbach’s alpha for this variable was .720, indicating good reliability of the items. Three items were used to measure the affordable loss principle. An example is, “We cannot commit resources that we can afford to lose, even if the potential for return is significant.” A 5-point Likert-type scale, anchored as 1 = strongly disagree to 5 = strongly agree, was used. We adapted the scale from Chandler et al. (2011). The Cronbach’s alpha for this variable was .83, which indicates good reliability of the items. However, re-validation of all these measurements was conducted by factoring them using the principal component with varimax rotation. All items were also loaded together sufficiently, followed by exploratory factor analysis to ensure commonalities, the goodness of fit, and level of nonredundant residual.

Control variables. Extant research suggests that an entrepreneur’s demographic variables (age, gender, years of experience in the industry, level of education, number of founders, and environmental uncertainty) help interact with different stakeholders in the environment in which they are functioning (Bian, 1997; Deligianni et al., 2015). The variables mentioned above can also determine the kind of support that entrepreneurs can receive from their stakeholders. We controlled the mentioned variables as follows: The variable “years of experience” indicates the number of years the entrepreneur has been in the industry. Venture’s founder is a continuous variable that reflects the size of the entrepreneurial team. Environmental uncertainty is measured by using the four-item scale that captures the rate, such as “the entrepreneur cannot predict the actual user of the product” (Zahra et al., 2007). Entrepreneur experience is measured by the number of years that an entrepreneur has operated the venture. Gender was regarded as a binary variable (1 = male; 2 = female); age was a continuous variable measured in years. Education level was measured as dummy variable (0 = no formal education; 1 = formal education). The theoretical and empirical evidence justified that the net influence of ESE on resources acquisition can carefully be determined after controlling the effect of these covariates.

Data Analysis

Preliminarily, after the descriptive analysis, the study examined the convergent and discriminant validity of the latent factors by conducting a first-order confirmatory factor analysis (CFA) in AMOS 22. The CFA used a covariance matrix as input and maximum likelihood (ML) estimation method. Moreover, the square root of average variance extracted scores (AVEs) for each construct was used to confirm the discriminant validity of the constructs (Fornell & Larcker, 1981). Factor loadings measured convergent validity. Hair et al. (2013) suggested that to achieve convergent validity, the standardized factor loading estimates of a construct should be 0.50 or higher and they must be statistically significant. The primary analyses were conducted to examine the hypothesized relationships. Hierarchical linear modeling (HLM) was performed to investigate the direct effect of ESE on resources acquisition (Cohen et al., 2013). Besides, structural equation modeling was used to examine the indirect effect of ESE on resources acquisition (Hair et al., 2013; Holmbeck, 1997; Kline, 2011). The mediation results were confirmed by using the bootstrapping method (Andrew Hayes Process macro) as a post hoc analysis for evaluating the significance of the indirect paths, as recommended by Hayes (2017).

Results

Descriptive Statistics and Correlations

The present study examined skewness and kurtosis values for normality, the result of which indicated variables were normally distributed and ranged between −1.00 and +1.00. After that, Table 1 presents the descriptive statistics and correlation coefficients for all variables. In this study, no interactor correlations were above the cut-off level of .80 as suggested by Tabachnick and Fidell (1996). Nevertheless, these variables related to one another only modestly, as indicated by the correlation coefficients that vary from .01 to .57. Thus, no multicollinearity concern can be raised following Neter et al. (1996).

Measurement Assessment

CFA

Table 2 depicts the detailed results of the CFA model fitness for conceptual and comparable models. The hypothesized five-factor model fitted well in all goodness-of-fit indices (GFI) compared with any of the alternative models, $\chi^2(219) = 424.96$, CMIN ($\chi^2/df$) = 1.98, GFI = 0.94, root mean square error of approximation (RMSEA) = 0.05, root mean square residual (RMR) = 0.01, normed fit index (NFI) = 0.91, comparative fit index (CFI) = 0.94, Tucker–Lewis index (TLI) = 0.95, RFI = 0.96, adjusted goodness-of-fit index (AGFI) = 0.95, and parsimony-adjusted measures
index (PNFI) = 0.79. All indexes were in the range recommended by Hair et al. (2013), that is, RMSEA has to be equal or below 0.08. Average AVE met the threshold recommended by Joseph et al. (2009) as it is in Table 3 and CR was higher than .5

### Main Analysis

#### The Direct Effect of ESE on Resources Acquisition

By using hierarchical regression, the result indicated that ESE significantly predicted the ability of entrepreneurs to acquire resources ($\beta = 2.68, p \leq .001$). The overall model proved to be significant, given that the controls and the ESE accounted for 25% of the variation in building the ability to acquire resources ($R^2 = .25, p = .0001, F = 21.35, p \leq .0001$) as in shown in Table 4. Also, the controls and ESE had high tolerance values (>0.10), and their variance inflation factor (VIF) scores were lower than 10. These results support the first hypothesis (H1) of the study.

### Mediating Effect

The current research employed a structural equation model technique with the ML estimation to test the mediation. Aligned with R. M. Baron and Kenny (1986), the process was as follows: First, the relationship between ESE and resources acquisition without mediators was examined and results indicated ($\beta = 0.68, p \leq .001$). After that, the relationship between the ESE and mediators was significantly and positively related to the three mediators as follows: affordable loss ($\beta = 0.127, p \leq .001$), precommitment ($\beta = 0.301, p \leq .0001$), and set of means ($\beta = 0.162, p \leq .0001$). Thus, the results proved the indirect relationship effect of ESE on resources acquisition ($\beta = 0.453, p \leq .0001$) after including mediators in the relationship.

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**Table 1. Descriptive Statistics and Correlation Among the Studies’ Variables (N = 462).**

| s/n | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----|-----------|---|---|---|---|---|---|---|---|---|----|----|
| 1   | Gender    |    |   |   |   |   |   |   |   |   |    |    |
| 2   | Education | -0.001 |   |   |   |   |   |   |   |   |    |    |
| 3   | Age       | 0.166 | -0.053 |   |   |   |   |   |   |   |    |    |
| 4   | Experience| 0.207 | -0.052 | 0.570** |   |   |   |   |   |   |    |    |
| 5   | NoF       | 0.162** | 0.057 | 0.255** | 0.303** |   |   |   |   |   |    |    |
| 6   | UE        | 0.092* | 0.012 | -0.031 | 0.009 | -0.006 |   |   |   |   |    |    |
| 7   | ESE       | -0.025 | -0.016 | 0.018 | 0.024 | -0.034 | 0.022 | 0.530 |   |   |    |    |
| 8   | MNS       | 0.035 | 0.017 | -0.009 | -0.038 | -0.098 | 0.028 | 0.435** | 0.720 |   |    |    |
| 9   | PRE       | -0.007 | -0.181 | 0.191** | 0.248** | 0.101* | 0.002 | 0.029* | 0.116* | 0.600 |   |    |
| 10  | ALO       | 0.086 | -0.201 | 0.029 | -0.077 | -0.154 | 0.008 | 0.015 | 0.114* | 0.065* | 0.580 |   |
| 11  | RECO      | 0.063 | -0.04 | 0.092* | 0.128** | 0.122** | -0.02 | 0.057* | 0.116* | 0.275** | 0.17* | 0.530 |

**Note.** Boldfaced values in the diagonal are the square root of AVE. NoF = number of founders; UE = uncertain environment; ESE = entrepreneurial self-efficacy; MNS = set of means; PRE = precommitment; ALO = affordable loss; RECO = resources acquisition; AVE = average variance extracted. *p ≤ .05. **p ≤ .001 (two-tailed).

### Table 2. CFA Fit Indices for Both Conceptual and Comparison Model.

| Model                      | Chi-square statistics | Absolute fit indices | Incremental fit indices | Parsimony fit indices |
|----------------------------|-----------------------|----------------------|-------------------------|-----------------------|
|                            | $\chi^2$ value | df  | GFI | RMSEA | RMR | CMIN | NFI  | CFI   | TLI  | AGFI | PNFI |
| Hypothesized five-factor model | 424.96      | 219 | 0.94 | 0.05 | 0.01 | 1.98 | 0.91 | 0.94  | 0.96 | 0.95 | 0.79 |
| Four-Factor Model | 874.63       | 220 | 0.85 | 0.08 | 0.28 | 3.97 | 0.78 | 0.84  | 0.76 | 0.80 | 0.80 |
| Three-Factor Model | 1,451.5      | 227 | 0.76 | 0.10 | 0.33 | 6.39 | 0.66 | 0.69  | 0.62 | 0.66 | 0.71 |
| Two-Factor Model | 1,947.00     | 229 | 0.71 | 0.13 | 0.34 | 8.50 | 0.54 | 0.57  | 0.49 | 0.52 | 0.65 |
| One-Factor Model | 2,277.01     | 230 | 0.68 | 0.14 | 0.39 | 9.89 | 0.46 | 0.48  | 0.41 | 0.44 | 0.62 |

**Note.** GFI = goodness of fit; RMSEA = root mean square error of approximation; RMR = root mean square residual; NFI = normed fit index; CFI = comparative fit index; TLI = Tucker–Lewis index; AGFI = adjusted goodness of fit; PNFI = parsimony-adjusted measures index; RFI = relative fit index.
Therefore, after the involvement of three mediators, the results indicated the partial and full mediation effect because two indirect paths remained significant, and one indirect path was insignificant. Thus, ESE → set of means → resources acquisition and ESE → precommitment → resources acquisition. ESE → affordable loss → resources acquisition was insignificant which proved full mediation. These results are indicated in Figure 2. However, the study assessed the significance of indirect effects by using bootstrapping analysis. The bootstrapping procedure is implemented by creating a 95% confidence interval (percentile and bias-corrected) around the indirect effect estimates, as shown in Table 5. Consistent with the standard decision criteria, the indirect effect considered significant when the corresponding confidence intervals excluded zero; otherwise, it was regarded as insignificant. These results support H2, H3, and H4 of the study.

Table 3. Construct Reliability, Factor Loadings, and AVE Scores.

| Codes | Factor loadings | Items                                                                                                                                                                                                 | α   | CR | AVE   |
|-------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| ESE1  | 0.52           | I can always manage to solve difficult problems if I try hard enough                                                                                                                                 |     |    |       |
| ESE2  | 0.70           | If someone opposes me, I can find means and ways to get what I want                                                                                                                                  |     |    |       |
| ESE3  | 0.80           | I am confident that I could deal efficiently with unexpected events                                                                                                                                    |     |    |       |
| ESE4  | 0.76           | Thanks to my resourcefulness, I know how to handle unforeseen situations                                                                                                                                |     |    |       |
| ESE5  | 0.87           | I can solve most problems if I invest the necessary effort                                                                                                                                             |     |    |       |
| ESE6  | 0.83           | I can remain calm when facing difficulties because I can rely on my coping abilities                                                                                                                   |     |    |       |
| ESE7  | 0.73           | When I am confronted with a problem, I can usually find several solutions                                                                                                                             |     |    |       |
| ESE8  | 0.55           | If I am in a bind, I can usually think of something to do                                                                                                                                             |     |    |       |
| ESE9  | 0.70           | No matter what comes my way, I’m usually able to handle it                                                                                                                                            | 0.84 | .907| 0.527 |
| RECO1 | 0.71           | The average amount of financial resources you obtained from your stakeholders in the past 3 years                                                                                                         |     |    |       |
| RECO2 | 0.83           | What is the average value of facilities and equipment (e.g., machines)                                                                                                                               |     |    |       |
| RECO3 | 0.64           | The average value of sponsorship agreement or contract you have secured from your stakeholders in the past 3 years                                                                                         | 0.837| .771| 0.531 |
| ALO1  | 0.72           | We cannot commit resources that we can afford to lose, even if the potential for return is significant                                                                                                 |     |    |       |
| ALO2  | 0.88           | We are careful not to risk more money than we are willing to lose, even if our concept is very appealing                                                                                           |     |    |       |
| ALO3  | 0.66           | We are careful not to exceed the company’s financial capacity should our innovation project prove to be unsuccessful                                                                 | 0.830| .801| 0.577 |
| MNS1  | 0.89           | Our networks contribute significantly to our ability to reconfigure our opportunities process                                                                                                           |     |    |       |
| MNS2  | 0.88           | Our networks help us to enhance and solidify our opportunities process                                                                                                                            |     |    |       |
| MNS3  | 0.88           | Our technical networks (e.g., university or commercial partners) assist us in improving our strategies concepts                                                                                       |     |    |       |
| MNS4  | 0.75           | We rely on our business networks to assist us in improving our opportunities process outcomes                                                                                                           | 0.740| .913| 0.725 |
| PRE1  | 0.85           | We used a substantial number of agreements with customers, suppliers and other organizations and people to reduce the amount of uncertainty                                                          |     |    |       |
| PRE2  | 0.80           | We used precommitments from customers and suppliers as often as possible                                                                                                                           |     |    |       |
| PRE3  | 0.77           | We used agreements with other people and organizations to help deal with changes in our business environment                                                                                        | 0.720| .854| 0.595 |

Note. AVE = average variance extracted; α = Cronbach’s alpha; CR = construct reliability; ALO = affordable loss; PRE = precommitment, MNS = set of means; RECO = resources acquisition.

Discussion

The present study reveals the influence of ESE on resources acquisition in an NV indicated by the positive and significant relationship, in line with Kickul et al. (2009). We attribute the positive relationship between ESE and resources acquisition that the entrepreneur with ESE possesses more confidence in his or her ability to participate to an NV tasks such as resources acquisition. Previous studies suggested the influence of ESE behavior on entrepreneur intention on an NV (Austin & Nauta, 2015; Fuller et al., 2018; Laguna, 2013; Murugesan & Jayavelu, 2017; Wilson et al., 2007). But these studies did not explicitly link ESE and resources acquisition, which proves the novelty of the present study. Thus, the results of the present study suggested ESE as an essential role in uncovering the essential skills required throughout the various stages of the NV development.
process. Moreover, this study introduced the effectuation principles as mediation constructs that ESE influences the resources acquisition in an NV. This objective is motivated by the argument from the social competence research that the effectual entrepreneurs emphasize the practical and instrumental course of action picked by the different route to display their actions (Dew et al., 2009). The route is through effectuation principles. The present study followed the suggestion in social competence research that effectuation principles can be used independently during the implementation of entrepreneurial activities in an NV (Arend et al., 2016; Deligianni et al., 2015; Palmié et al., 2018; Roach et al., 2019).

Table 4. Hierarchical Regression Results on the Effect of ESE on Resources Acquisition Capability (N = 462).

| Variables          | β    | t-statistics | p value | Tolerance | VIF | R²  | ΔR² | F   | ΔF  |
|--------------------|------|--------------|---------|-----------|-----|-----|-----|-----|-----|
| Stage 1            |      |              |         |           |     |     |     |     |     |
| Entrepreneur’s age | 0.00 | 0.35         | 0.72    | 0.66      | 1.51|     |     |     |     |
| Entrepreneur’s gender | 0.30 | 2.28         | 0.02    | 0.94      | 1.07|     |     |     |     |
| Industrial experience | 0.06 | 1.83         | 0.07    | 0.64      | 1.57|     |     |     |     |
| Entrepreneur’s education | −0.05 | −0.89        | 0.37    | 0.99      | 1.01|     |     |     |     |
| Environmental uncertainty | −0.02 | −0.71        | 0.48    | 0.88      | 1.13|     |     |     |     |
| Number of founders | 0.04 | 2.15         | 0.03    | 0.88      | 1.13|     |     |     |     |
| Stage 2            |      |              |         |           |     | .04 | .04 | 2.96| 2.96|
| Entrepreneur’s age | 0.00 | −0.41        | 0.68    | 0.66      | 1.51|     |     |     |     |
| Entrepreneur’s gender | 0.19 | 1.62         | 0.10    | 0.93      | 1.08|     |     |     |     |
| Industrial experience | 0.03 | 0.95         | 0.34    | 0.99      | 1.58|     |     |     |     |
| Entrepreneur’s education | −0.04 | −0.86        | 0.39    | 0.99      | 1.01|     |     |     |     |
| Environmental uncertainty | −0.01 | −0.60        | 0.55    | 0.99      | 1.01|     |     |     |     |
| Number of founders | 0.03 | 2.16         | 0.03    | 0.88      | 1.13|     |     |     |     |
| ESE               | 2.68 | 11.26        | 0.00    | 0.96      | 1.04| .25 | .21 | 21.35***| 126.78***|

Note. ESE = entrepreneurial self-efficacy; VIF = variance inflation factor.

Figure 2. Structural equation modeling results (N = 462).

Note. The dashed lines indicate nonsignificant paths. The coefficients in parentheses represent a mediated structural model (with indirect effects only), and those outside the parentheses represent a model with a direct effect of the ESE. ESE = entrepreneurial self-efficacy.

*p ≤ .01. **p ≤ .001 (two-tailed).
The partial mediating results of a set of means (networking) depict that the entrepreneurs use their effectual network to improve their resources constraints. Thus, a set of means through networking describes alternatives and resources that become available through the founding team network (Read et al., 2009; Roach et al., 2016). Its relevant results consider entrepreneurs who are characterized by the lack of collateral and information asymmetry. A set of means from entrepreneurs with self-efficacy and the people surrounding them are assumed as the source for their resources during the establishment of their venture.

Moreover, the partial mediation results of precommitment aligned with Roach et al. (2016) as well as Sarasvathy (2008) that entrepreneurs depend on their ability as well as stakeholders invited. Precommitment, as the formation of committed partners in the NV process, is suggested as the perfect match to entrepreneurs with self-efficacy because entrepreneurs with self-efficacy use the board of directors (such as venture capitalists) who have a stake in the venture as an important element for building a venture (Forbes, 2005). Therefore, the inclusive of the precommitment principle suggested improving the resources acquisition process in the environment, which lacks support for NVs such as Tanzania. Finally, results showed that the affordable loss fully mediated the effect of ESE on resources acquisition. This result implied that affordable loss explained the process thoroughly that ESE influences resources acquisition. Entrepreneurs with self-efficacy perceived to control resources in the venture to meet the required outcome. In an uncertain environment in which NVs are in, resources need to be controlled for venture survival. ESE is perceived to achieve specific tasks given that resources acquisition is one of them, especially during the venture establishment. The full mediation result indicates that the affordable loss as an important mediator in the relationship between ESE and resources acquisition. However, the affordable loss result was contrary to the result of Roach et al. (2016). Roach et al. (2016) could not find the mediating role of affordable loss between the relationship. Different environment entrepreneurs are in and relationships which tested could be the cause of that result.

**Implication and Limitation**

The finding of the present research provides an important contribution to knowledge about the role of ESE in resources acquisition, especially to an NV. ESE is explored in this study as the entrepreneurs’ driving ability to resources acquisition. In an environment with uncertainty like Tanzania, entrepreneurs with self-efficacy can serve NVs. Their ability to search for finance and attracting stakeholders serve as an essential factor in the NV at the time of venture establishment. Entrepreneurs need this ability to overcome the underperforming financial market in Tanzania. Moreover, it is the call to policymakers in the entrepreneurs’ field to have public training that could enhance ESE, and finally, they can face the environment they are in. Policymakers and regulatory bodies should emphasize the institutions that are available, both private and government, to work with young entrepreneurs as their apprentice or provide an internship. By this, they will acquire enough knowledge and experience on how to deal with the uncertain environment when they start to work on their NV. Self-efficacy to entrepreneurs serves as a resource to handle unforeseen situations at the establishment stage. Entrepreneurs with self-efficacy can overcome their shortcomings such as lack of collaterals and information asymmetry only by involving stakeholders who are ahead of them. Affordable loss, precommitment, and set of means principles are reinforced this process. These principles act as a force that could be driven by stakeholders and entrepreneurs themselves into acquiring resources. They should use what they have at hand (experience from previous routines) to invite onboard stakeholders who believe in their ideas using their network. This approach eliminates problems such as not being recognized as a potential NV by investors. It also removed issues such as needing to bargain with investors because investors are part of the process and committed to the venture.

However, the study encounters some limitations. The present study examined only experienced entrepreneurs so generalization can be questionable. Future studies should involve nonexperienced entrepreneurs using the same variables to enhance generalizability. The present study considered quantitative data only to analyze the relationship of interest. We suggest both qualitative and quantitative as suggested by Perry et al. (2012) to reach more convincing results. Finally, this study used cross-sectional data, which determine results at a certain point in time. However, longitudinal studies can be proven better and robust. Different environments (certain and uncertain) are suggested in future studies to land in to interesting findings.

**Table 5. Bootstrapping Results.**

| Path                                    | Effect | BootSE | BootLLCI | BootULCI |
|-----------------------------------------|--------|--------|----------|----------|
| Total                                   | 0.453  | 0.0455 | 0.0729   | 0.2553   |
| ESE–set of means–resources acquisition | 0.129* | 0.0185 | 0.0176   | 0.5761   |
| ESE–affordable loss–resources acquisition | 0.054  | 0.0166 | 0.1117   | 0.1162   |
| ESE–precommitment–resources acquisition | 0.27*  | 0.0433 | 0.0605   | 0.2296   |

*Note. ESE = entrepreneurial self-efficacy; LLCI = lower level of confidence interval; ULCI = upper level of confidence interval. p ≤ .05."
Theoretical Contribution

First, this study expanded the understanding of the alternative theory of effectuation. As the theory matures, this study managed to connect the concepts of effectuation theory, self-efficacy theory, and the general theory of entrepreneurship. The connection of the effectuation to other theories has been proposed with competitive research such as Perry et al. (2012) to find out whether effectuation is conceptually related to other theories. There has been an association of ESE with effectuation, that is, Engel et al.’s (2014) study argued that entrepreneurs who experienced an increase in ESE were more likely to use effectuation under uncertainty conditions. Effectuation theory proposes the means or mechanisms that should be used by entrepreneurs to achieve entrepreneurial outcomes. The entrepreneurship theory by Shane (2003) suggests criteria such as resources acquisition for the entrepreneurs’ venture to be able to survive and make a profit and initial public offering. Second, the findings reveal how the ESE promotes the acquisition of the resource for entrepreneurial ventures via effectuation principles (pre-commitment, set of means and affordable loss). This study contributes by offering empirical evidence on the efficient mechanism which is effectuation. Recent studies demonstrated the effect of effectuation in different ventures’ outcomes (de la Cruz et al., 2018; Guo, 2019; Prashantham et al., 2019); therefore, the present study added to the empirical findings that effectuation is a vehicle by which entrepreneurs’ behavior such as ESE translates to venture’s tasks, that is, resources acquisition. The result added to the study by Sarasvathy (2003) who suggested that the set of principles can be integrated into a coherent whole. Last, this study augmented the body of knowledge by empirically proving how entrepreneurs with ESE can use alternative methods of operating a venture by given means, emphasizing precommitment, and seeking to control an unseen and unpredictable future. This work proved ESE and effectuation theories to be a current guide for entrepreneurs, unlike the neo-classical theory which is regarded to be static in nature (Stephen & John, 1996).

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