Employee Self-efficacy and Firm Resources on Intrapreneurial Behaviour

Abstract

Increasingly organisations seek to enhance employee intrapreneurial behaviour. An individual employee’s intrapreneurial behaviour may be inspired by the individual’s own characteristics or the nature of the organisation. The purpose of this study was to examine the effect of employee perceived self-efficacy on intrapreneurial behaviour among Small and Medium size Enterprises (SMEs). We surveyed 234 employees from SMEs in the fresh fruit juice processing industry. A structured questionnaire was used to collect data. We performed a statistical data analysis and found that employees’ perceived self-efficacy relates positively to their intrapreneurial behaviour. However, we observed that self-efficacy was not a sufficient condition for intrapreneurial behaviour to occur. Firm characteristics play a crucial role in the practice of such behaviour. That is, while employees’ self-efficacy is a principal determinant of employees’ intrapreneurial behaviour, the strength of self-efficacy is enhanced by firm resource. Our results have policy implications for the promotion of SMEs in Ghana and similar context. Our study contributes to knowledge on intrapreneurship in SMEs by pointing out that individual characteristics are not always linear in relation to intrapreneurship. Other factors which enhance these characteristics need to be taken account of.

Key Words: Intrapreneurship, innovation, self-efficacy, SMEs, Ghana

1.1 Introduction

Entrepreneurship has been continually argued in literature as a strategy for firms’ as it provides real and tangible benefits for the organisation such as survival, growth and enhance their competitiveness. The multidisciplinary nature of entrepreneurship concepts makes it easily applicable in many different areas. A special type of entrepreneurship applied within an existing organisation is referred to as intrapreneurship. Entrepreneurship and intrapreneurship are closely related terms, as intrapreneurship is entrepreneurship undertaking in a different environment.
The concept of intrapreneurship is initiated by Pinchot (1978; 1985) who discouraged workers not to leave the organisation upon discovery of new opportunities or ideas but rather inject these ideas into the organisation. Intrapreneurship is the act of stimulating employee initiatives through identifying and examining potential new opportunities, ideas, align appropriate resources to ensure implementation, exploitation and commercialisation of new products or services (Thornberry, 2003; Guth and Ginsberg, 1990; Kuratko et al., 1990).

Intrapreneurship may originate from either management or employees of an organisation (Antonic and Antoncic, 2011; Bosma et al., 2011; Stam and Stenkula, 2017). In the first case, managers facilitate, promote and institutionalize policies and structures within the organisation that allow intrapreneurs to easily access the necessary resources to develop and implement innovative ideas and projects. In the latter case, individual employees are considered to apply their knowledge, skills, abilities and experience as the basis for an individual’s intrapreneurial behaviour (Alpkan et al., 2010).

Intrapreneurship is akin to management as it uses the fundamentals of management, while adopting a behavioural style that challenges bureaucracy and encourages innovation (Barringer and Bluedorn, 1999) and it is an important issue for both large and small firms (Carrier, 1994, Sijde et al., 2013; Hoglund, 2015). Intrapreneurship plays an important role in making firms competitive. Thus, the competitive and dynamic business environment (Morris et al., 2011), is increasingly compelling firms to take intrapreneurship as a serious issue. Consequently, firms of all kinds have been attempting to inculcate a culture of intrapreneurship through continuously appraising the existing modes of business operations, so that more efficient and effective systems can be evolved and adopted as a way of remaining competitive.

Most of the studies on intrapreneurship have been focused in favour of large organisations/firms (Alpkan et al., 2010; Bosma et al., 2011; Kuratko et al., 2011). Intrapreneurship within Small and Medium size Enterprises (SMEs) has been rarely discussed in literature (Carrier, 1996). A particular concern is the issue of employee/worker who is the initiator of intrapreneurial actions, has not received much attention in literature. Employees’ innovation initiatives are the core of any intrapreneurial activity. This is evident when employees identify a new market opportunity and capabilities on it, develop or invent new a product and or carry out initiatives that encourage cost-reducing routines, or employees fine-tuning their jobs (Amo, 2010).
In addition, literature indicates that the topic of employees’ intrapreneurial behaviour has not been given extensive attention as this prevent organisations, in particular SMEs from reaping the full potential of creative and innovation behaviour among employees (Drejer et al., 2014). To contribute in addressing this gap, this study, examines employee self-efficacy as a potential antecedent for intrapreneurial behaviour as well as the mediating role of firm resources. Specifically, the study investigates 1) potential effect of employee self-efficacy regarding i) efficacy beliefs ii) outcome expectation on intrapreneurial behaviour, 2) potential mediating effect of firm resources availability on employee self-efficacy and intrapreneurial behaviour. The rest of the paper is organized as follows: literature review, methodology, research findings and finally discussions and conclusions.

1.2 Literature Review and Hypotheses Development

The concept of intrapreneurship has been measured in different ways (See table 1.1). These measurement approaches include innovativeness, proactiveness, risk-taking, self-renewal, new business venturing. It is observed that majority of the studies conducted in the 1980s (e.g. Miller 1983, Covin and Slevin, 1989) had proposed intrapreneurship as consisting of 1) innovativeness 2) Proactiveness and 3) risk taking. In later periods, a blend of dimensions was used by different scholars with some using the three and others using five. Innovation is an integral part of intrapreneurship. According to Schumpeter (1934), carrying out innovations is the only function which is fundamental in the history of an organisation and it is akin to creation of new things. He accented entrepreneurship equals innovation irrespective of where it takes place (Andersen, 2009, 2011) with emphasis on entrepreneurship within the firm. This is because entrepreneurship which is identifying and exploiting opportunities (entrepreneurship) ends in the creation of new things (innovation) while on the other hand creation of new things depend largely on the ability to identify and exploit opportunities. Schumpeter (1939) asserts that in the attempt to add value to an existing product or create new ones or modify production processes, an element of destruction is encountered. This is what Schumpeter refers to as creative destruction. This implies that the act of innovation must always give way to the old and embrace the new.
Innovation may be seen as a necessity for firms; such that if firms do not encourage and support innovation, they are likely to become stagnant, less effective and less competitive for the simple reason being that the world is dynamic. This is very much in line with descriptions by Schumpeter (1939) who assert that entrepreneurship within firms (intrapreneurship) consists of doing things that are not generally done in the ordinary course of business routine. Drucker (1985) also supports the view of innovation as the specific tool for entrepreneurship of any kind, emphasizing that innovation creates resources while resources create innovation in firms. He states seven main sources (unexpected occurrences; incongruities; process needs; industry and market changes; changes in demographics, changes in perceptions and new knowledge) through which firms could identify changes and symptoms that indicate opportunities for successful innovation. Therefore, innovation may be a robust measure of intrapreneurship. Table 1.1 shows some measuring indicators of intrapreneurship.

<table>
<thead>
<tr>
<th>Scholars</th>
<th>Measuring indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller and Friesen (1983)</td>
<td>Innovation, Risk taking, Proactiveness</td>
</tr>
<tr>
<td>Covin and Slevin (1986), Wiklund (1999)</td>
<td>Risk taking, Innovativeness, Proactiveness</td>
</tr>
<tr>
<td>Kreiser et al. (2002) Tarabishy et al. (2005)</td>
<td></td>
</tr>
<tr>
<td>Guth and Ginsberg (1990), Zahra (1991, 1993)</td>
<td>Internal innovation or venturing, strategic renewal</td>
</tr>
<tr>
<td>Lumpkin and Dess (1996)</td>
<td>Autonomy, Innovativeness, Risk taking, proactiveness, Competitive aggressiveness</td>
</tr>
<tr>
<td>Knight (1997)</td>
<td>Innovativeness and Proactiveness</td>
</tr>
</tbody>
</table>

Adapted from Antoneic and Hisrich (2003)

A detailed description of all these measuring indicators may culminate into either innovativeness or proactiveness. For instance, in expatiating on internal innovation or venturing (the birth of new business or products within an existing organisation, Guth and Ginsberg, 1990), new business venturing strategic renewal (the redefinition of the business concepts reorganization and the introduction of system-wide changes for innovation, Zahra, 1993), and self-renewal (transformation of organisation through the renewal of the key ideas on which the organisations are built, Sharma and Chrisman, 1999), leads one into discussing about innovation.
and the various activities such as new creation in terms of process, product, technology, venturing new market identifying new market niche and opportunities (Schumpeter, 1939; Wilken, 1979; Drucker, 1985) that constitute it. Innovativeness was conceptualised as a measure of intrapreneurial behaviour and was operationalised as 1) marketing new products, 2) leading in new market identification, 3) constantly modifying product design and packaging, 4) production of novel products and 5) employees thinking and acting creatively rather than imitating.

Competitive aggressiveness and risk-taking in a more indepth direction may relate towards proactivity while autonomy could be applied under either innovative action and or a proactive action. Proactiveness relates to initiatives taking in pursuing new opportunities (lumpkin and Dess 1996) and describes an act in anticipation of action to be taking to always be ahead of competitors. A firm is said to be proactive when its employees are always taking initiatives, tackling issues head on, anticipating and preventing problem and are change oriented (Bateman and Crant, 1999) as intrapreneurs who exhibited a proactive behaviour were inclined to adopt more business opportunities than competitors (Becherer and Maurer, 1999).

A study conducted by Vargas-Halabi (2017) among University professionals who worked mainly in private organisation in Costa Rica found that proactivity is a higher level construct of intrapreneurship. Sijde et al. (2013) found a similar view that proactiviness such as initiative taking, is a measure of intrapreneurship. This present study conceptualises proactiveness as a measure of employee intrapreneurial behaviour and operationalises it as 1) thinking in terms of future, 2) taking initiatives and 3) being active not passive in the business environments.

1.2.1 Self-efficacy

Self-efficacy refers to an individual’s beliefs in his or her capacity to execute behaviours necessary to produce specific performance attainments. Self-efficacy concept may be explained by the self-efficacy theory which assumes that all processes of psychological change operate through the alteration of individuals’ expectancies and personal mastery or efficacy (Bandura, 1977, 1986, 1997). These expectations concerning personal mastery could be viewed as two independent expectations 1) outcome expectation; which is the anticipation that a given
behaviour will or will not lead to a given outcome and 2) efficacy beliefs; which is the belief that
an individual is or is not capable of performing the requisite behaviour. Efficacy beliefs are said
to determine subsequent behaviour, both in terms of the initiation and the persistence of
behaviour (Bandura, 1997) and that people take action when they hold efficacy expectation that
make the effort seem worthwhile. Efficacy beliefs determine how much effort and persistence
people show towards a given task (Biglan, 1987).

Outcome expectancies may also influence individuals’ behaviour. That is, individuals
perception of the likelihood that a particular outcome will result from a particular behaviour or
action. Vroom (1964) expectancy theory sheds more insights on individuals’ expectation and
performance. The instrumentality component of Vroom expectancy theory highlights on the
outcome possibilities of a behaviour as the outcome which maximizes gain and minimizes pain
would be chosen.

Self-efficacy comes from a number of sources including an individual’s past experience
of accomplished performance,, vicarious experience obtained from mentors, role models –
learned by observing them or reading about them, verbal persuasion from encouragement and
exhortation from people friends, family members and emotional arousal which is obtained from a
stressful or a rise of a necessity (Bandura, 1977, 1982; Muretta, 2005). A critical look at the
sources of self-efficacy seems to lead itself into either a ‘pull’ or a ‘push’ factor of
intrapreneurship; as an individual may be pulled or push by either of the sources of self-efficacy
to become efficacious. Pinchot (1999) suggests a set of skills, abilities and behaviours necessary
to be developed among the employees for promotion of organisational intrapreneurism. Out of
the 1ten skills proposed by Pinchot in assisting organisations to be supportive for
intrapreneurism, self-efficacy was identified as a robust factor affecting behaviour. However,
self-efficacy has been researched extensively in social science disciplines but more recently in
management and entrepreneurship research (Barakat et al., 2014) with specific reference to
research on self-efficacy and intrapreneurship very limited.

---

1Pinchot (1999) ten steps to intrapreneurism in firms; 1) social knowledge to make innovations significant, 2) prior
intrapreneurial or entrepreneurial understanding, 3) inventiveness, 4) to identify prospects that others could not
identify, 5) to interact with other organisational experts and customers, 6) to correspond effectively across the
technical boundaries, 7) self-efficacy in initiating or leading the organisational change processes, 8) risk orientation,
9) forbearance against uncertainty and ambiguity and 10) high need for achievement, understanding the
organisational power and politics.
Empirical studies have consistently found positive relationships between self-efficacy and entrepreneurial intentions and orientation (e.g., Boyd and Vozikis, 1994; Townsend et al., 2010; Mohd et al., 2014). Few studies on self-efficacy and intrapreneurial behaviour have also produced positive relationship. For example, Cetin (2011) conducted a study to discover the role of self-efficacy and locus of control on the process of intrapreneurship among 211 employees in the information sector in Turkey. Findings reveal that employees with high self-efficacy succeed on intrapreneurial processes and activities particularly in innovativeness. Although, result from Cetin’s (2011) study would inform this present study’s findings, it did not address employees within SMEs. In addition, the study context may also differ from the context of this present study. Although self-efficacy is a function of two expectations (Bandura, 1977) most of the studies that have used self-efficacy have rarely outline these two functions separately to examine their impact on the intrapreneurial behaviour. Few studies that have distinguished between the two functions recorded that efficacy expectation is a stronger predictor than outcome expectation (Dorner, 2012) however, in different context and in different sectors. Based on above, this present study hypothesizes that:

\[ H_1: \text{Employee self-efficacy has a positive effect on intrapreneurial behaviour.} \]
\[ H_{1a}: \text{Employee efficacy expectation has a positive effect on intrapreneurial behaviour.} \]
\[ H_{1b}: \text{Employee outcome expectation has a positive effect on intrapreneurial behaviour.} \]

1.2.2 Firm Resource

A firm's resources are defined as those (tangible and intangible) assets which are tied semi permanently to the firm (Caves, 1980). Brand names, in-house knowledge of technology, employment of skilled personnel, trade contacts, machinery, efficient procedures and capital (money), materials for production are examples of resources a firm can possess. Literature at large with insight from the resource based theory emphasises firm resources as a fundamental determinants of its competitive advantage and performance. We hypothesise that no matter how efficacious an individual may be; the absence of right resources may hinder the execution of a given task; as resources are also important part of all entrepreneurial activities irrespective of
where it takes place. It suggests that access to; and availability of firm resources may facilitate employees’ efficacious behaviour towards intrapreneurial activities. Studies on the mediating effect of firm resources on self-efficacy and intrapreneurial behaviour is scarce in literature.

De Massis et al. (2017) conducted a study among the German Mittelstand firms using a model identifying and integrating six salient traits of firms that allow them to efficiently orchestrate their resources to innovate and compete with their competitors in the global market. It was reveal that resource unavailability could not hinder German Mittelstand firms from behaving innovatively. A study by Hewitt-Dundas (2006) on resource and capability constraints to innovation in small and large plants revealed that the unavailability of resources may constrain intrapreneurship characterised by innovation on the part of small firms. Urbano et al., (2013) conducted a study on resources and intrapreneurial activities. They analysed the influence of resources and capabilities on the probability of becoming an intrapreneur. They found that companies’ resources and capabilities are a key factor in the development of intrapreneurship.

As much as these past studies are informing the current study on the relationship between firm resource availability and intrapreneurial behaviour, these past studies are conducted in different context with no consensus in findings. These contexts may differ from that of the present study. In addition, the past studies did not test the mediating effect of firm resource availability. We therefore examine the mediating role of firm resource availability on self-efficacy and intrapreneurial behaviour in Ghana. It is therefore hypothesis that:

\[ H_2: \text{there is a mediating effect of firm resources on self-efficacy and intrapreneurial behaviour.} \]

According to the resource base view, firm resources are made up of tangible and intangible resources. The tangible resources are the physical things (plants, machinery, equipment raw materials for production) while the intangible could be seen as trademarks, intellectual property, firm’s reputation, culture, knowledge or know-how, accumulated experience of it workers. According to Peteraff (1993) the main reason for a firm’s growth is within the firm itself; and competitive advantage required for transforming these resources into capabilities (Barney, 1991; Grant, 1991). Penrose (1959) also indicates that firms’ extra performance is because of the proper use of their competencies rather than processing resources.
Thus, firms require different resources for their intrapreneurial endeavour. For the present study, firm resource was conceptualised as a two function (resources for production and presence of intrapreneurally inclined employees) based on the output from the exploratory factor analysis which is also in line with the theoretical explanation of resources in firms.

Based on the above a conceptual framework was developed to depict this relational flow (See Figure 1). The predictor variables are self-efficacy (looking at workers efficacy expectation and their outcome expectation) and organisational resources (mediator) while the criterion variable is intrapreneurial behaviour with innovativeness and proactiveness as its indicators.

Figure 1: Conceptual Framework depicting the relational flow between self-efficacy, firm resources and intrapreneurial behaviour with their coefficient

1.3 Methodology

To collect data for this study, a survey was conducted involving 290 employees from fresh fruit juice processing SMEs in Ghana. 234 responses were secured, which made an 81 percent response rate. This is adequate given that a response rate of at least 50 percent is suitable for use (Mugenda and Mugenda, 2010). Employees were chosen because they are the focus of intrapreneurship studies (Stevenson and Jarillo, 1990). Three regions (Greater Accra, Eastern and Central) of Ghana were chosen for the study. These regions were chosen because they have a large concentration of SMEs who operate in juice processing industry. Probability sampling was
employed in the context of stratified samples to select the respondents. Data was assessed for reliability at Cronbach Alpha Coefficient of 0.925. This is above the ideal Cronbach Alpha of 0.7 (Fatima et al., 2015, Hair et al., 2014). However, some of the individual variables produced internal coefficients below 0.7, but generated acceptable internal coefficients of 0.5 (Malviya, 2013).

The survey instruments contained measurement items derived from previous studies. Self-efficacy items were adapted Bandura (1985) and other related studies (Cetin, 2011). Items were anchored on a 5-point Likert scale whereby 1= very low extent to 5= very high extent. The indicators of intrapreneurial behaviour were measured by item adapted from Antoncic and Hisrich (2003) and anchored on a five-point Likert scale ranging from 1 = high in disagreement to 5 = high in agreement. Firm resource was developed and measured on a five-point scale ranging from 1 = a very little extent to 5 = very high extent.

Items used in measuring organisational resources produced two components; resource for production such as (water, raw material, electricity, tools and equipment for production) and intrapreneurial resources such as (the presence of an intrapreneurial inclined workers and or owner manager, in-house knowledge on intrapreneurship acquired through trainings and workshop, intrapreneurial networks, money) Money which is perceived to be a factor of production, loaded under intrapreneurial resources after six iterations. This suggests that money is an indispensable resource for intrapreneurial activities.

The questionnaire focused on four main sections: first, the demographic profile of respondents, such as their gender (sex), age and level of education; second, considered self-efficacy regarding efficacy beliefs and outcome expectation, third aspect was on firm resources and last contains questions on intrapreneurial behaviour. Questionnaires were administered in person and the returned questionnaires were checked, numbered and the items coded and processed using SPSS 22. Outliers and missing values were checked and assumptions for normality, homogeneity, linearity and collinearity were met.

Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted to check the validity and to reduce items used in measuring the study constructs. A total of 30 items were used in conducting exploratory factor analysis. After six (6) iterations, six (6) components were produced with 22 items retained. The items that were isolated either cross loaded or did not produce the threshold value of 0.4 (Hair, Black and Anderson, 2014). Each
component culminated into a study construct. The six components produced a total variance of 65.580%, KMO 0.847, Bartlett’s test of sphericity ($\chi^2 = 2382.198$, df 253 $p < 0.001$).

The 22 items retained from EFA were used in conducting Confirmatory Factor Analysis (CFA). After CFA 1 items were retained. The model produced was fit with $\text{CMIN/DF} = 1.697$, $\text{GFI} = 0.896$, $\text{CFI} = 0.941$, $\text{TLI} = 0.930$, $\text{IFI} = 0.942$, $\text{RMSEA} = 0.055$ and $\text{PCLOSE} = 0.226$. The overall acceptable CFA model fit indices threshold used in this study were: the Chi-Square/Degree of Freedom (CMIN/DF) value equal to or less than 4.00, Goodness of Fit Index (GFI) value equal to or greater than 0.90, CFI (Comparative Fit Index) value equal to or higher than 0.90, Normed Fit Index (NFI) value equal to or greater than 0.90, Tucker and Lewis Index (TLI) value equal to or higher than 0.90, the Incremental Index of Fit (IFI) value equal to or higher than 0.90, and the Root Mean Square Error of Approximation (RMSEA) value equal to or less than 0.07 (Hair, et al., 2014). All the model indices for this study were within the ideal model indices threshold.

From the CFA output (measurement model) data exactly fit the model proposed for this study as shown in Table 2.

**Table 2. Regression Weights: (Group number 1 - Default model)**

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBLS1</td>
<td>.1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBLS2</td>
<td>.654</td>
<td>.080</td>
<td>8.157</td>
<td>*** par_1</td>
<td></td>
</tr>
<tr>
<td>OEXP1</td>
<td>.203</td>
<td>.072</td>
<td>2.807</td>
<td>.005 par_2</td>
<td></td>
</tr>
<tr>
<td>OEXP2</td>
<td>.181</td>
<td>.072</td>
<td>2.519</td>
<td>.012 par_3</td>
<td></td>
</tr>
<tr>
<td>INTPRS1</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTPRS2</td>
<td>1.369</td>
<td>.112</td>
<td>12.173</td>
<td>*** par_4</td>
<td></td>
</tr>
<tr>
<td>INTPRS3</td>
<td>1.336</td>
<td>.108</td>
<td>12.354</td>
<td>*** par_5</td>
<td></td>
</tr>
<tr>
<td>INTPRS4</td>
<td>1.243</td>
<td>.110</td>
<td>11.301</td>
<td>*** par_6</td>
<td></td>
</tr>
<tr>
<td>INN1</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INN2</td>
<td>.969</td>
<td>.064</td>
<td>15.202</td>
<td>*** par_7</td>
<td></td>
</tr>
<tr>
<td>INN3</td>
<td>.964</td>
<td>.080</td>
<td>11.989</td>
<td>*** par_8</td>
<td></td>
</tr>
<tr>
<td>INN4</td>
<td>.601</td>
<td>.069</td>
<td>8.702</td>
<td>*** par_9</td>
<td></td>
</tr>
<tr>
<td>RA1</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RA2</td>
<td>1.106</td>
<td>.130</td>
<td>8.497</td>
<td>*** par_10</td>
<td></td>
</tr>
<tr>
<td>RA3</td>
<td>1.032</td>
<td>.123</td>
<td>8.390</td>
<td>*** par_11</td>
<td></td>
</tr>
<tr>
<td>RA4</td>
<td>.950</td>
<td>.118</td>
<td>8.037</td>
<td>*** par_12</td>
<td></td>
</tr>
<tr>
<td>RA5</td>
<td>.779</td>
<td>.112</td>
<td>6.954</td>
<td>*** par_13</td>
<td></td>
</tr>
<tr>
<td>PRO1</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO2</td>
<td>1.129</td>
<td>.119</td>
<td>9.479</td>
<td>*** par_14</td>
<td></td>
</tr>
<tr>
<td>PRO3</td>
<td>1.254</td>
<td>.133</td>
<td>9.399</td>
<td>*** par_15</td>
<td></td>
</tr>
<tr>
<td>PRO4</td>
<td>.874</td>
<td>.116</td>
<td>7.567</td>
<td>*** par_16</td>
<td></td>
</tr>
</tbody>
</table>

Survey Data (2017)
S.E= Standard Error; C.R.= Critical Ratio; P = Probability

As shown in Table 2, the probability for variables in the prediction of each item are significantly different from zero at a 0.001 (two-tailed) indicating that for the model to predict the dependent variable for any value of independent variable is valid. In the case of outcome expectation, the probability of getting a critical ratio as large as 2.519 in absolute value is 0.011 as shown in Table 1. In other words, the regression weight for self-efficacy in the prediction of OEXP2 is significantly different from zero at the 0.05 level (two-tailed).

Table 3 Reliability Test

<table>
<thead>
<tr>
<th>Construct and their reliability Before EFA (items)</th>
<th>Construct after EFA</th>
<th>Construct and their reliability after CFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficacy Expectation (5 )</td>
<td>0.796</td>
<td>Efficacy Expectation (2) 0.682</td>
</tr>
<tr>
<td>Outcome Expectation (5 )</td>
<td>0.792</td>
<td>Outcome Expectation (2) 0.660</td>
</tr>
<tr>
<td>Self-efficacy (10)</td>
<td>0.820</td>
<td>Self-efficacy (4) 0.520</td>
</tr>
<tr>
<td>Innovativeness (6)</td>
<td>0.874</td>
<td>Innovativeness (4) 0.812</td>
</tr>
<tr>
<td>Proactiveness (5 )</td>
<td>0.714</td>
<td>Proactiveness (3) 0.832</td>
</tr>
<tr>
<td>Intrapreneurial behaviour (11)</td>
<td>0.864</td>
<td>Intrapreneurial behaviour (7) 0.818</td>
</tr>
<tr>
<td>Resources for production (5)</td>
<td>0.817</td>
<td>Resources for production (5) 0.817</td>
</tr>
<tr>
<td>Intrapreneurial resources (4)</td>
<td>0.884</td>
<td>Intrapreneurial resources (4) 0.884</td>
</tr>
<tr>
<td>Organisational resources (9)</td>
<td>0.830</td>
<td>Organisational resources (8) 0.821</td>
</tr>
<tr>
<td>Composite Reliability (30)</td>
<td>0.925</td>
<td>Composite Reliability (19) 0.851</td>
</tr>
</tbody>
</table>

1.4 FINDINGS

1.4.1 Relationship between self-efficacy and intrapreneurial behavior

We computed Pearson correlation coefficient to examine the relationship among study variables. The correlation coefficient produces a statistic value that ranges from -1 to 1. The closer the coefficient value is to 1 or -1, the stronger the relationship (Mugenda and Mugenda, 2010).
Table 4 Correlation coefficient matrix on self-efficacy and intrapreneurial behaviour

<table>
<thead>
<tr>
<th></th>
<th>Efficacy beliefs</th>
<th>outcome expectation</th>
<th>Self-efficacy</th>
<th>Firm resources</th>
<th>intrapreneurial behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Efficacy beliefs</strong></td>
<td>R</td>
<td>.119</td>
<td>.805**</td>
<td>.359**</td>
<td>.644**</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>.069</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Outcome expectation</strong></td>
<td>R</td>
<td>.119</td>
<td>.685**</td>
<td>.144</td>
<td>.212**</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>.069</td>
<td>.000</td>
<td>.028</td>
<td>.001</td>
</tr>
<tr>
<td><strong>Self-efficacy</strong></td>
<td>R</td>
<td>.805**</td>
<td>1</td>
<td>.350**</td>
<td>.600**</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Firm resources</strong></td>
<td>R</td>
<td>.359*</td>
<td>.144</td>
<td>.350**</td>
<td>.457**</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>.000</td>
<td>.028</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Intrapreneurial behaviour</strong></td>
<td>R</td>
<td>.644**</td>
<td>.212**</td>
<td>.600**</td>
<td>.457**</td>
</tr>
<tr>
<td></td>
<td>P</td>
<td>.000</td>
<td>.001</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Results in Table 4 show that there is a positive and statistically significant relationship between self-efficacy and intrapreneurial behaviour ($r = 0.600$, $p < 0.01$). This significant value informs that the probability of getting a correlation coefficient of this value in a sample of 234 respondents if the null hypothesis is true is very low as it is close to zero. That is, the significant values were below or equal to the standard criterion of 0.05 indicating a statistically significant relationship between the variable.

Thus, when workers have a high sense of efficacy, new ideas, leading to the development of new product lines would emerge, while the drive to constantly improve upon the quality of old product to raising the quality of new products would become the culture of the firm. In addition, workers would take initiatives and be able to anticipate and plan events ahead of time.

Further analysis was conducted to ascertain the predictive effect of the explanatory and mediating variables on the explained variables. Simple and multiple regression analysis involved testing of three models. In each model the standardised coefficients have been used to explain the predictability of the variables while adjusted R squared is used in explaining the predictability of the whole model. Adjusted R is used in place of R squared because it takes into consideration the possible influence of other variables on the outcome variable and eliminate it.
In the first model, the straight line relationship between self-efficacy and intrapreneurial behaviour has been presented.

**Table 5** Regression coefficient of self-efficacy on intrapreneurial behaviour

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstd coeff.</th>
<th>Std. coeff.</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.762</td>
<td>0.207</td>
<td>8.507</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.583</td>
<td>0.051</td>
<td>11.419</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

R = 0.600
R square = 0.360
Adjusted R square = 0.357

Source: Field Data, 2017  **p<0.01; *p<0.05 (N = 234)**  Condition index – 15.528
Dependent variable: Intrapreneurial behavior

Where Unstd = Unstandardised, Coeff. = Coefficient, Std. = Standardised, Tol. = Tolerance

As represented in Table 5, self-efficacy produced a beta coefficients ($\beta = 0.600$, $p < 0.01$). The result implies that a unit change in the standard deviation of self-efficacy, will lead to a 0.600 standard deviation increase in intrapreneurial behaviour. The model produced an adjusted $R^2$ of 0.357. This implies employee self-efficacy as a single antecedent could explain 36% of intrapreneurial behaviour in SMEs. It presupposes that self-efficacy is a robust predictor for intrapreneurial behaviour. The model is fit at $F [(1,232) = 130.388, = P <0.001]$. Null hypothesis $H_{01}$ is rejected because there is no evidence to support it.

In the second model, the two indicators of self-efficacy have been entered as explanatory variable of intrapreneurial behaviour.
### Table 6 Regression coefficient of efficacy on outcome expectations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstd coeff. B</th>
<th>std. error</th>
<th>Std. Coeff. Beta</th>
<th>t</th>
<th>Sig</th>
<th>Collinearity Tol.</th>
<th>VIF</th>
<th>Condition index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.000</td>
<td>0.200</td>
<td></td>
<td>10.004</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficacy expectation</td>
<td>0.416</td>
<td>0.033</td>
<td>0.628**</td>
<td>12.597</td>
<td>0.000</td>
<td>0.986</td>
<td>1.014</td>
<td>10.535</td>
</tr>
<tr>
<td>Outcome expectation</td>
<td>0.112</td>
<td>0.041</td>
<td>0.138*</td>
<td>2.758</td>
<td>0.006</td>
<td>0.986</td>
<td>1.014</td>
<td>17.133</td>
</tr>
</tbody>
</table>

R = 0.659  
R square = 0.434  
Adjusted R square = 0.429  

Source: Field Data, 2017  
**p<0.01; *p<0.05  (N = 234)  
Dependent variable: organisational resources  
Where Unstd = Unstandardised, Coeff. = Coefficient, Std. = Standardised, Tol. = Tolerance  

As shown in Table 6, between the two indicators of self-efficacy, efficacy beliefs produced a beta coefficient of (β = 0.628, p < 0.01) while outcome expectation produced a coefficient of (β = 0.138, p < 0.05). Although both indicators were significant, efficacy belief seems to be a strong indicator of employee intrapreneurial behaviour than outcome expectation. This finding supports Bandura’s (1982) assertion that among agency, none is more central or pervasive than beliefs of personal efficacy. Hence, this study rejects the null hypotheses H₀1a and H₀1b because no findings were produced in support of them.
Table 7 Regression coefficient of self-efficacy, firm resources on intrapreneurial behaviour

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstd coeff.</th>
<th>Std. error</th>
<th>Std. Coeff. (Beta)</th>
<th>T</th>
<th>Sig</th>
<th>Collinearity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.089</td>
<td>.233</td>
<td>4.667</td>
<td>.000</td>
<td></td>
<td>.878</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>.487</td>
<td>.052</td>
<td>.501**</td>
<td>9.452</td>
<td>.000</td>
<td>.878</td>
</tr>
<tr>
<td>Firm resources</td>
<td>.256</td>
<td>.048</td>
<td>.282**</td>
<td>5.312</td>
<td>.000</td>
<td>.878</td>
</tr>
</tbody>
</table>

R = 0.655
R square = 0.429
Adjusted R square = 0.425

Source: Field Data, 2017  **p<0.01; *p<0.05  (N = 234)

Dependent variable: organisational resources

Where Unstd = Unstandardised, Coeff. = Coefficient, Std. = Standardised, Tol. = Tolerance

As represented in Table 7, when firm resources was introduced in model 1 to produce the third model the beta coefficient of self-efficacy dropped as shown in Table 7. This indicates that some of the explanatory power of employee self-efficacy is shared by firm resources. This implies that the availability of firm resources could increase the efficacy of employees. The model after the introduction of firm resources generated an increase in adjusted $R^2$ from 0.357 to 0.425. That is, the model after the introduction of firm resources produced a predictive variance of 43 percent of the outcome variable. The mediating effect of firm resources could be described as a medium effect of 0.190. Thus, there is a significant indirect effect of self-efficacy on intrapreneurial behaviour through firm resources. Based on the significant mediating effect produced, we reject the null hypothesis $H_{02}$.

Table 8 shows the mediating effect of firm resources on self-efficacy and intrapreneurial behaviour as well as indices of the fitness of the model. A critical look at the difference between before and after of the t values from the model may indicates the fitness and significance of the
model as the difference between the before and after of the F value is also fit and significant; shown in Table 8.

Table 8 Summary of Regression Analysis

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Before</th>
<th>After</th>
<th>Change</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>1.762</td>
<td>1.089</td>
<td>0.673</td>
<td>Significant</td>
</tr>
<tr>
<td>R² value</td>
<td>0.357</td>
<td>0.425</td>
<td>0.190</td>
<td>Significant</td>
</tr>
<tr>
<td>F value</td>
<td>130.388</td>
<td>86.948</td>
<td>43.44</td>
<td>Significant</td>
</tr>
<tr>
<td>t value</td>
<td>8.507</td>
<td>4.667</td>
<td>3.840</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Extract from regression models

1.5 DISCUSSION

The exploratory analyses conducted show that employees’ in SMEs of Ghana have a high level of self-efficacy, in particular those in the fruit juice processing industry. This finding suggests that employees in SMEs of Ghana believe in their ability to start and successfully complete any given task, and this could lead to a higher intrapreneurial behaviour. This finding is consistent to that Ravindra and Wajid (2012) who found that self-efficacy is significantly higher among employees within private enterprises. This findings could also been explained from the traditional perspective of how the Ghanaian child is brought up to become efficacious through poetry, traditional songs, drama and encouragement from the society.

Despite the growing importance for intrapreneurship globally and in particular Africa, it is not fully understood how SMEs could become and remain intrapreneurial through the innovative and proactive initiatives of its employees. This is because fewer studies have been carried out towards that research direction. Our empirical investigation shows a positive significant effect of self-efficacy on intrapreneurial behaviour. This presupposes that self-efficacy is a potential antecedent of intrapreneurial behaviour. This is consistent with the findings by Wakkee et al. (2010); Wood and Bandura (1989) who found that self-efficacy has a positive effect on intrapreneurial behaviour. This finding also supports the self-efficacy theory which assumes that the more efficacious an individual is, the higher the tendency for him/her to behave intrapreneurial. In addition, it is not surprising that self-efficacy influence intrapreneurial
behaviour. This is because the act of entrepreneurship irrespective of where it takes place requires an individual with traits such as self-reliance, resilience, high level of confidence, belief in ones abilities to perform, pragmatic, daring and the can do spirit.

Furthermore, our study found that employee efficacy belief is a stronger predictor of intrapreneurial behaviour than outcome expectation. The finding indicates that employees place much priority on their ability to successfully carry out an assigned task rather than the outcome (Bandura, 1987). This is because what you can do, and how well you can do it, determines the outcome (Choi et al., 2003). This is contrary to the Vroom (1964) expectancy theory which assumes that a favourable outcome an individual expect could trigger an action or behaviour.

Resources, both tangible and intangible, are the core elements of any firm (Barney, 1991). It affects all the activities in a firm resonating their competitive advantage and performance. We examined whether the presence of resources in firms could trigger employees self-efficacy and intrapreneurial behaviour. Findings indicate an association between firm resource availability and self-efficacy. In the presence of employees who are efficacious and in the absence of resources, firms cannot achieve their core aim of existence much less to behave intrapreneurial. This finding is congruent to that of Davidson and Honing (2003) who assert that access to resources enhances the individual’s ability to detect and act upon discovered opportunities. Thus, firm resource availability may boost employees’ efficacious actions.

Regarding the mediating role of firm resources availability and its effect on self-efficacy and intrapreneurial behaviour, the results as shown in Table 6 indicate the mediating effect of firm resources availability on self-efficacy and intrapreneurial behaviour. This presupposes that whenever intrapreneurial activities increases as a result of employees’ efficaciousness, firm resources such as equipment, machines, utilities and raw materials for production must be available. In addition, intrapreneurially inclined employees who serve as a role model and offer encouragement to fellow employees’, increasing in-house knowledge on intrapreneurship through training and workshop must as well be available.

Concerning the two functions of self-efficacy and firm resource availability, outcome expectation seems to be insignificant with respect to firm resources while personal efficacy is significant. This may imply that availability of firm resources could increase the personal efficacy level of employees while the outcome expectation does not directly depend on the
availability of resources but indirectly, through the right coordination and combination of these resources dependent on personal efficacy.

1.5.1 Implications of study findings

The implications based on the findings indicate that initiating and sustaining an intrapreneurial behaviour among employees is influenced by both characteristics of the organisation itself and by characteristics of the individuals involved. The study recommends to owner-managers and or managers that since self-efficacy can trigger an individual’s intrapreneurial behaviour, owner-managers could help employees to increase and maintain their efficacy drive by encouraging them to believe in their abilities and always try out something new. They could also give their employees’ additional responsibility and duties using a job rotation strategy, delegate to them as well as ensure an effective two way communication in the firm. Most importantly, owner managers and or managers must strive to create an environment free from distractors with resources of all types and forms readily available. These would increase as well as maintain and sustain the self-efficacy of employees in SMEs. However, managers wishing to increase the level of intrapreneurship (innovativeness) among its employees should be aware that all employees will not necessarily respond in the same way to this managerial request.

When self-efficacy is high among employees, it will lead to the discovery of new ways of carrying out activities in the firm, constantly modify products, anticipating the environment and planning ahead of circumstances and situations. This in the long term will help SMEs particularly those of Ghana fresh fruit processing industry to grow and become competitive. In today’s competitive environment self-efficacy of employees leading to an intrapreneurial behaviour is what a firm needs because a firm is only as good as its abilities to identify new ideas and manage these ideas productively.

To the employees in the SMEs, findings from this present study indicate that how well a task is accomplished determines how good or rewarding the outcome would be. However, how well an action is carried out is a factor of an individual’s self-efficacy. Having a high self-efficacy is adequate to succeed on any task. Therefore, employees should whip up their self-efficacy through learning, carefully observing and willingness to try hands on new and
challenging assignments in and outside their firm. This would increase their efficacy towards 
handling any assign task.

The government of Ghana, like any other country seeks to promote intrapreneurship 
within it various institutions particularly it’s SMEs. Findings from the present study indicate that 
enhancing the self-efficacy of employees within SMEs, particularly those in the fresh fruit juice 
production seems to be a potential means of promoting intrapreneurship in SMEs. Therefore, 
policymakers and other stakeholders initiating national and regional development programmes 
will also gain by taking account of the findings reported in this study. Programmes intended to 
promote intrapreneurship characterised by innovativeness and proactiveness in organisations 
involving employees must take into account both organisational and individual factors. Such 
organisational factors could be the availability of resources in the organisation while the 
individual level, may consider factors such as employees own self-efficacy.

This article discusses the content and the area of application of corporate intrapreneurship 
behaviour in SMEs. The discourse should not end with this; other views should enlighten the 
research community interested in organisational change driven by intrapreneurship characterised 
by innovation and proactivity. One of the weaknesses of this article is that it only addresses a 
limited set of facets of the employee intrapreneurial behaviour. The discussion in this paper 
indicates that important moderators influence employee intrapreneurial behaviour. The 
conclusion of this article is that exploration of innovative and proactive behaviour among 
employees is valuable as such processes may be seen as the result of, or the response to, 
intrapreneurship behaviour. Likewise, it could be regarded as a self-directed initiative of an 
employee to pursue a profitable opportunity on behalf of an employer. All such processes help 
organisations to stay competitive. Further research is needed for a better understanding of the 
different ways on how intrapreneurial activities should be enabled and or organised. This article 
contributes to this end by clarifying self-efficacy as a potential measurement with which to 
predict intrapreneurial behaviour; and self-efficacy theory may be applied for intrapreneurship in 
SMEs with the introduction of firm resources.
Reference


Gartner, W. B. (1989) Who Is an Entrepreneur?” Is the Wrong Question 0363-9428/88i 1 24, University of Baltimore Educational Foundation


