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THE ROLE OF TRAINING RESOURCES IN IMPLEMENTATION OF ENTREPRENEURSHIP EDUCATION PROGRAMME IN TECHNICAL TRAINING INSTITUTIONS IN KENYA

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ABSTRACT

All over the world, entrepreneurship education is a recognised strategy for inculcating an entrepreneurial culture, which establishes a context for entrepreneurship practice. In Kenya, implementation of the entrepreneurship education programme in technical training institutions began in the 1990s. However, the difficulty of technical training institutions graduates to confront unemployment by practicing entrepreneurship has raised concerns about the implementation of an entrepreneurship education programme, with availability of training resources as the suspect culprit. This descriptive, cross-sectional census survey set out to examine the effects of availability of training resources on entrepreneurship education programme implementation in technical training institutions in Kenya. Data collected from entrepreneurship education programme tutors in all technical training institutions in Nairobi County were analysed using descriptive and inferential statistics. The findings showed that availability of training resources has a positive effect on entrepreneurship education programme implementation. However, technical training institutions do not avail enough of them, thus curtailing implementation. The study recommends that technical training institutions employ strategies to ensure adequate programme resourcing. The study highlights the practical challenges that undermine initiatives to inculcate entrepreneurship competencies in technical training institutions trainees in Kenya.

Key Words: Entrepreneurship education programme, training resources, small business centres, practicing entrepreneurs, resource dependency theory

INTRODUCTION

Entrepreneurship education is a recognised strategy for developing an entrepreneurial culture in which entrepreneurship practice can thrive. Entrepreneurship practice creates employment, improves individual incomes, stimulates a progressive emancipation of communities from economic subjugation, and enhances national economic development. The benefits of entrepreneurship practice have motivated different nations to mainstream entrepreneurship development programmes in their economic development strategies, with the aim of building capacity of their workforce to engage in entrepreneurship practice. This rationale gives support to the inclusion of entrepreneurship education programmes (EEPs) in economic transformation blueprints of many nations in the world. Kenya has such a blueprint, dubbed *Kenya Vision 2030*, the aim of which is for Kenya to “become a middle-income rapidly industrialising country by 2030, offering all its citizens a high quality of life” (ROK, 2013).

The success of any capacity development programme is dependent on the various practices that constitute programme implementation strategies. One of these strategies is availing the unique resources that pertain to implementation of the programme. Thus, implementing EEP implies training resource imperatives (Fayolle, Gailly, & Lassas-Clerc, 2006). Technical training institutions (TTIs) in Kenya require appropriate resource prescriptions and their subsequent availability to enable them effectively discharge their mandate of producing

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entrepreneurially adept graduates. The resources include an EEP department within the bigger TTI institutional structure, a small business centre (SBC) (also referred to as an entrepreneurship development centre), entrepreneurship educators/trainers who are conversant with pedagogical variations in entrepreneurship teaching (Luyima, 2010), practicing entrepreneurs, and adequate finances (a critical factor affecting provision of all the other resources).

The programme should be institutionalised by creating an autonomous and adequately resourced entrepreneurship education department. The department would serve as a repository for learners, staff and the surrounding community, because it would enable them to access educational programmes, networking opportunities, equipment and other training resources for entrepreneurship development, benefits that are accessible to both the institution and the host community (Morris, Kuratko, & Cornwall, 2013; Mansor & Othman, 2011; Nelson & Johnson, 1997). These benefits also endear the TTI to the community by portraying a good corporate social responsibility, because the TTI is seen as a participant in the community's socio-economic development.

Proper EEP implementation is predicated upon a teaching strategy modelled on the entrepreneurial process itself (Jones & English, 2004). Establishing an SBC is a viable way to model the entrepreneurial process inside a TTI. An SBC is a centrally located organisational entity that provides information, guidance and professional advice on starting and running a successful business. It provides access to requirements that facilitate development of small enterprises. At the introduction of EEP in Kenya in the 1990s, TTIs were taxed with the responsibility of establishing SBCs to facilitate EEP implementation, because they provide opportunities for students to learn practically how entrepreneurship is applied in a natural economic setting (Nelson & Johnson, 1997; Tranchet & Rienstra, 2009).

The programme also requires teachers who are capable of using diverse teaching methods to deliver EEP lessons (Jusoh, 2012), because the learning process of entrepreneurs is uniquely different from that of non-entrepreneurs (Fredrick, 2007). Entrepreneurs learn through such behavioural practices as problem solving, trial-and-error, experimentation, interpretation, discovery and sense making (Oğuz, 2001; Neck, Green, & Brush, 2014). Teachers responsible for training entrepreneurs have to possess the methodological preparation to organise learning environments that motivate or trigger and sustain their learners' cognitive structure formations. They need to present diverse learning experiences in order to appeal to the varied learning capabilities and characteristics of entrepreneurship trainees (Fredrick, 2007; Oğuz, 2001; Luyima, 2010).

In addition, modelling a teaching strategy on the entrepreneurial process requires an input of practicing local business people. Local practising entrepreneurs constitute a resource pool of role models who can positively influence students for career entrepreneurship. However, engaging them involves a cost element. However, capitalisation challenges belabour TTIs, making it difficult to engage local entrepreneurs (Tranchet & Rienstra, 2009; Parsley & Weerasinghe, 2010). This failure contributes to ineffective teaching/training, which in turn fails to boost entrepreneurship graduates' self-efficacy.

Unfortunately, TTIs are grossly under-funded, resulting in inadequate resources for EEP implementation (Kung'u, Njui, & Kimani, 2014). Government allocation to TTIs has always been insufficient; for example, in the 2015/16 national budget more than 50 TTIs were altogether allocated KShs. 3.0 billion, which was reduced to KShs. 2.5 billion in the 2016/17 budget (Rotich, 2015, 2016). On average, this allocation translates to less than KShs. 60 million annually for each TTI, which is hardly enough to finance their recurrent and developmental expenditures (Simiyu, 2009). Inadequate government allocation to TTIs implies that total dependence on government funds is untenable, compounding the situation of strained training resources (ROK, 2000).

Insufficient resource allocation has undesirable long-term effects on the economic empowerment of TTI graduates. As a result, they face difficulties in navigating the myriad environmental economic challenges in their post-training career initiatives, with many of them remaining unemployed for long periods, and others under-employed (Maina, 2006). The cumulative impact of unemployed and under-employed TTI graduates breeds economic frustration, undermines the socio-economic well-being of their communities, renders national economic development strategies meaningless, however well intentioned, and ultimately pushes Kenya's Vision 2030 out of reach.

The objective of this study was to examine the effects of availability of training resources on implementation of EEP in TTIs in Kenya. The findings of the study demonstrate the challenges of resource scarcity faced by

entrepreneurship education teachers/trainers. The study also offers practical solutions to mitigate the identified challenges.

LITERATURE REVIEW

A proper implementation of EEP requires it to be institutionalised by creating an autonomous entrepreneurship education department, adequately staffed with suitably qualified teachers, and its own sub-administration to address issues unique to the teaching of entrepreneurship education (Nelson & Johnson, 1997). Embedding the programme in an already existing department has often been relied on as a stop-gap measure to give it a home when the subject of entrepreneurship is first introduced in an institution (Morris *et al.*, 2013; Nkirina, 2009). However, expeditious subsequent institutionalisation ensures an operational entrepreneurship education department which serves as a repository to provide entrepreneurs with access to educational programmes, networking opportunities, equipment and resources to cater for the needs of entrepreneurship development in the institution and the local community (Mansor & Othman, 2011).

Jones and English (2004) emphasised the importance of training resources for developing a teaching strategy that is modelled on the entrepreneurial process itself. When entrepreneurship education was introduced in TTIs in the 1990s, a critical recommendation for each department in charge of entrepreneurship education was the establishment of an SBC (Nelson & Johnson, 1997). The mission of an SBC is to promote an entrepreneurial culture within the institution and the local community through facilitating the development of small enterprises (Nelson & Johnson, 1997; Farstad, 2002). It provides access to educational programmes related to entrepreneurship, networking opportunities, equipment and training resources either on campus or within the community. In direct relation to the training function, SBCs are able to create an in-house link between theory and practice, and thus assist in the transfer of learning by entrepreneurship students.

As entrepreneurship education requires unique teaching methodologies, significant institutional matching training resources are necessary, and these may be different from those required for teaching other disciplines (Nkirina, 2009). For example, an entrepreneurial-directed approach may require a smaller class size and place greater demands on the physical facilities than the more traditional approaches (Parsley & Weerasinghe, 2010). Financial and infrastructural training resources are also required to realign systems and processes that are involved in delivering entrepreneurship education. Educators/trainers should remain alive to the uniqueness of entrepreneurial learning, and conduct lessons that provide varied leaning experiences commensurate with the different leaning styles of their trainees. Thus, TTIs should be invested with sufficient and appropriate human and physical resources, and training materials to expedite implementation of the programme (Luyima, 2010; Isaacs, Visser, Friedrich, & Brijlal, 2007).

Moreover, entrepreneurship education should be closely linked with entrepreneurship practice (Tranchet & Rienstra, 2009). Entrepreneurship educators should utilise the local business community as an important educational resource to demonstrate the relevance of entrepreneurship education to their students. They should integrate local practicing entrepreneurs to enrich the students' learning process (Tranchet & Rienstra, 2009; Parsley & Weerasinghe, 2010). As an important strategy for creating an entrepreneurial drive, local business people can serve as invited speakers and role models for students considering an entrepreneurial career path. Souitaris, Zerbinati, and Al-Laham (2007) found that the inspiration which motivates trainees to choose an entrepreneurial career path is drawn from not only their teachers, but entrepreneurship practitioners as well. Lockett, Quesada-Pallares, Williams-Middleton, Padilla-Mele'ndez, and Jack (2017:67) posited that in entrepreneurship education, social networks are strategically important and should be leveraged "to connect students to the real world". In their study, they found that social networks are a resource that educators should integrate in their curriculum delivery efforts so that their trainees can get the opportunity to interact with the real business world.

Personal engagement with practicing entrepreneurs enhances the interest of entrepreneurship students as they interact with those in the real world of entrepreneurship practice. This implies that teachers/trainers and their institutions should establish a strategic functional contact with operators of business ventures in their neighbourhoods for purposes of training, because developing entrepreneurial mindsets among students is not entirely a theoretical exercise. The design of EEP should afford a forum for broad dissemination of the successes and failures of practicing entrepreneurs. Interaction with practical entrepreneurship can positively influence the desire of a student to become an entrepreneur by demystifying the process and showing that the entrepreneurship career option is feasible (Garavan & O'Conneide, 1994; Maritz & Brown, 2011). This interaction is also an important contribution to the development of an entrepreneurial culture.

It is understandable that engaging practitioners to motivate trainees involves a cost element. However, this in itself is a further justification why a sustained provision of financial training resources is an imperative for EEP (Alarape, 2008). A long-known traditional financier of TTIs is the government, which usually carries the bigger responsibility of financing education at all levels of the education pyramid. There is a lingering expectation that the government will promptly disburse its periodic financial allocation to TTIs so that the human and non-human training resource requirements for the programme can be provided. However, the disbursement has rarely been timely or sufficient, causing entrepreneurship education to struggle with challenges of capitalisation (Farstad, 2002; Tranchet & Rienstra, 2009) and problems of training resources. This financial constraint translates into inadequate entrepreneurship teaching, which affects the self-efficacy of TTI graduates; this can explain their reluctance to start their own business ventures when they fail to get paid employment after training (Ngosiane, 2010; Maina, 2006).

The challenge of training resource scarcity in the context of human capital development through education and training is also felt in other parts of the world. Mihi-Ramírez (2016) observed that the higher education enterprise in Spain was confronted by constrained resources, occasioned by spasms of economic recession, resulting in “substantial differences in tuition fees, scholarships, number of teachers and their skills” (p.113). Powell and Rey (2015) decried declining financial support from the government to public higher education universities in the US, and scarcity of other resources related to education and training, advising that the institutions expeditiously consider effective fiscal responses to the environmental changes to obviate “adverse consequences” (p. 94). Luyima (2010) found that teachers in Nangabo Sub-County in Uganda lacked the resources they required to effectively deliver entrepreneurship lessons. It seems that universally, training resource scarcity is a bane for entrepreneurship human capital development efforts.

Attempts to alleviate the scarcity in TTIs in Kenya have been noted. The Government of Kenya advised educational institutions to adopt innovative strategies for resource mobilisation to top up government allocation (ROK, 2006). One such practical strategy available to individual TTIs is to start income-generating activities. Another is to establish contact with their alumni and request them for financial support; as beneficiaries of the system, TTI alumni can readily understand their appeal for financial assistance and reciprocate by “giving back” (Morris, Kuratko, & Cornwall, 2013). However, this requires that TTIs maintain an alumnus updated database in order to engage them. In addition, TTIs can involve the private sector to supplement training resources for EEP implementation. A sufficient training resource provision from the TTI resource pool enables entrepreneurship educators to access other training resources within the wider TTI social environment, which include entrepreneurship practitioners, the business regulatory regime and other stakeholders. Educators can ensure that these resources are tapped for the benefit of the students’ learning. In this way, access to institutional training resources enhances EEP implementation, because it facilitates interaction between entrepreneurship trainees and the entrepreneurship habitat, thus building the motivation which nascent entrepreneurs draw on to actualise their dreams. Given that the programme has been under implementation for some time, the unresolved difficulty of TTI graduates to create their own jobs instead of waiting to secure scarce paid jobs puts to question the supposed positive effect of training resource availability on EEP implementation.

Network Theory and Resource Dependency Theory are pertinent in explicating the training resource imperatives in EEP implementation. These theories help to explain the relationship between availability of training resources and EEP implementation, because they relate to management of externally constrained organisations. These theories are discussed in the following sections.

Network Theory

Tracing its genesis to Johanson and Mattson (1987), the Network Theory depicts the market as a system of social and industrial relationships among different stakeholders competing for the same resources. The relationships between the different players determine the competitive strategy adopted by individual players. To establish its own niche in the market, a firm entrenches itself in a favourable position relative to counterparts in the network. The model consists of three interacting components at an international level – actors, activities and resources. The main actors in the process of internationalisation are all the organisations and entrepreneurs who interact to facilitate exchange. Activities are the various business exchange transactions among the actors, and these may be direct or indirect. A direct exchange transaction is one in which the actor is directly involved in effecting the transaction; an indirect exchange transaction is one which affects the actor but is carried out by a different actor or actors, for example transactions between governments and other corporate entities.

With respect to resources, the theory assumes that the different network players share the resources in the network. In order to access the resources, players must entrench themselves in the network and secure a strategic foothold by transacting. The network relationship is useful to the different players because they have to be intelligent and perceptive and learn to correctly predict the consequences of strategic actions of other players in the network and understand how these consequences will affect their own network standing (Tolstoy, 2010). This informs their strategic positioning actions in the competitive business world.

With respect to EEP, the significance of this theory concerns the resources required for entrepreneurship training in TTIs. The TTI administration provides an operational environment akin to the global business context in which there are many actors sharing commonly accessible resources. The resource pool is located in the TTI universe, and each subject discipline, including entrepreneurship education, jostles for its share of the same resources. The resource mobilisation wing of entrepreneurship education must argue its case for recognition as an autonomous discipline to be allocated sufficient training resources to achieve its objectives of developing entrepreneurs. The persons mandated to mobilise resources must establish a strategic foothold by showing that entrepreneurship training is critical in the legitimacy of the TTI and the architecture of the national economy (Timmons & Spinelli, 2004). A proper management of the internal institutional politics is necessary for EEP to entrench itself within TTIs and carve its own strategic niche, and thus enhance its chances of securing requisite training resources (Isaacs *et al.*, 2007; Nkirina, 2009; Morris *et al.*, 2013).

Resource Dependency Theory

Originally developed by Pfeffer and Salancik (1978), the Resource Dependency Theory postulates that an organisation is constrained by its environment in regard to access to the resources that it requires for its operation and survival. Moreover, there is mutual dependence between the organisation and its environment, so that the input resources for its operations are determined by the environment; reciprocally, the organisation's process output is consumed by the environment. Each of the two strives to reduce its dependence on the other, while simultaneously seeking to increase the dependence of the other on it. The party that ends up being more heavily dependent on the other is at a disadvantage, because it will lose self-determination, and its survival will be dictated by the other party.

In the context of EEP, there are two intersecting environments that the programme interacts with – the immediate structured TTI contextual environment, in which EEP is one of the programmes clamouring for resource share, and the environment external to the TTI structural boundaries. For the structured TTI contextual environment, EEP is dependent on the TTI administration to provide it with teachers, equipment and any other resources incidental to the training function. Reciprocally, the TTI administration depends on EEP to discharge its mandate of entrepreneurship development, and thereby prove to the public that the TTI deserves support to continue functioning. For the environment external to the TTI structural boundaries, there are important resource interactions with EEP, because some of the training resources are located in the external environment, for example practising entrepreneurs, resource persons, and internships (Neck *et al.*, 2014; Mansor & Othman, 2011). The programme also provides resources to this environment through entrepreneurship consultancy services to local businesses.

This theory is appropriate in explaining the role of training resources in EEP implementation because there is a mutual ongoing dependence between EEP and its environment. The reciprocal dependence is the basis for TTIs to accumulate their training and consultancy capacity, so that they can patronise the local business environment, as the business environment on its part supplies the training resources inherent in it to enable entrepreneurship trainees to relate theory with actual practice (Jones & English, 2004). Figure 1 shows the framework that links the independent and dependent variables.

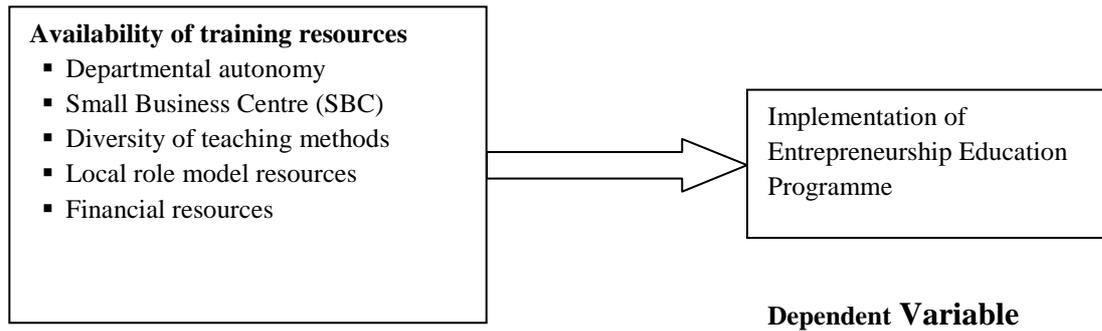


Figure 1: Conceptual Framework

METHODOLOGY

The study adopted a survey research design. The list of accredited TTIs in Nairobi County compiled by the Ministry of Higher Education, Science and Technology formed the sampling frame (ROK, 2013). The study involved institutions offering the technical education curriculum examined by Kenya National Examination Council (KNEC). A pilot study was carried out using a self-administered semi-structured questionnaire to collect primary data. Experts, who included entrepreneurship lecturers in selected TTIs and universities, examined the questionnaire to weed out ambiguities in its design and ensure its conformity with the research objectives (O'Leary, 2010). The pilot study results were used to refine it so that it could elicit the appropriate responses from respondents. The questionnaire yielded a content validity index (CVI) of 0.83, which was determined using the formula proposed by Gay and Aurasian (in Luyima, 2010): $CVI = (\text{No. of questions declared valid}) / (\text{Total No. of questions})$. The CVI was judged to be acceptable, as it was above the 0.70 minimum threshold value (Wynd *et al.*, 2003). Cronbach's alpha was used to demonstrate the reliability of the questionnaire. The Cronbach's alpha coefficient was 0.726, which is greater than the 0.7 recommended minimum (Santos, 1999). Thus, the instrument could be used for the study, as it had sufficient validity and reliability. A census survey for all teachers of EEP in the 17 TTIs in Nairobi County was conducted, yielding a population of 58 teachers. To depict the relationship between availability of training resources and implementation of EEP, the study used descriptive statistics, factor analysis and a simple linear regression model.

RESULTS

Out of the 58 questionnaires distributed, 54 were filled and returned, constituting a 93.1% response rate, which was deemed very good (Fraenkel & Wallen, 2000). The high response rate may be explained by the personal efforts the researchers made to distribute and collect the questionnaires. The study involved EEP teachers in 17 TTIs in Nairobi, run under different administrations. Majority (48.1%) of the respondents were in MOHEST-administered TTIs, 38.9% were in parastatal-administered TTIs, and 13.0% were in TTIs run by private individuals. Majority (64.8%) of the respondents were male, while 35.2% were female. Most of the respondents (68.5%) did not have any administrative position, while 32.1% of them did. Specifically, 22.6% were heads of department (HODs), 3.8% were deputy HODs, and 5.7% held other administrative positions, which included deputy principal and examination officers.

Regarding the weekly teaching workload, 27.8% of the respondents had a load of 9-12 hours, another 27.8% had a load of 13-16 hours. Other 24.1% had a load of over 16 hours, 14.8% had 5-8 hours, and 5.6% taught 4 or less hours every week. Table 1 shows the experience of respondents in the teaching profession. 'Overall teaching experience' is the number years that a respondent had been in the teaching profession. 'Teaching experience in TTIs' is the number of years that a respondent had taught in TTIs, while 'Teaching experience in current TTI' refers to the number of years, that a respondent had taught at the TTIs where they worked at the time of the survey.

Table 1: Respondents' Teaching Experience

	0 – 5 years	6 – 10 years	11 – 15 years	16 – 20 years	Over 20 years
Overall teaching experience	13 (24.1%)	5 (9.3%)	12 (22.2%)	9 (16.7%)	15 (27.8%)

Teaching experience in TTIs	25 (46.3%)	9 (16.7%)	13 (24.1%)	5 (9.3%)	1 (1.9%)
Teaching experience in current TTI	28 (51.9%)	15 (27.8%)	11 (20.4%)	-	-

To assess the influence of training resource availability on implementation of EEP, a five-point Likert scale was employed. The scale responses ranged from 1 (Strongly Disagree) to 5 (Strongly Agree). The results, shown in Table 2, indicate that the majority (85.1%) of respondents agreed or strongly agreed that EEP requires unique teaching resources, 9.3% were neutral, and 5.7% disagreed or strongly disagreed. For the statement 'Entrepreneurship education needs an autonomous department', the majority 83% agreed or strongly agreed, 9.4% were neutral, and 7.6% disagreed or strongly disagreed.

Regarding the need of sufficient human resources in TTIs regarding entrepreneurship education, the majority (94.4%) agreed or strongly agreed, 3.8% were neutral, while 1.9% strongly disagreed. With respect to the statement that the local business community is an important educational resource, most (96.3%) respondents agreed or strongly agreed, and 3.8% entered a neutral response.

Table 2: Influence of Resource Availability on Implementation of EEP

Legend: SD Strongly Disagree; D Disagree; N Neutral; A Agree; SA Strongly Agree

Statement	SD	D	N	A	SA
Entrepreneurship education requires unique teaching resources	1.9	3.7	9.3	44.4	40.7
Entrepreneurship education needs an autonomous department	1.9	5.7	9.4	26.4	56.6
TTIs require sufficient human resources for teaching entrepreneurship	1.9	0	3.8	32.1	62.3
The local business community is an educational resource	0	0	3.8	34.0	62.3

Respondents' opinions and explanations were also sought regarding the influence of availability of training resources on EEP implementation. Table 3 shows their responses, which were classified according to four thematic areas. These areas all constellated around the effectiveness of teaching EEP lessons. The majority (96.2%) of the respondents agreed that the availability of training resources influenced implementation of EEP, while 3.8% disagreed. The explanation offered by the majority who agreed (70.6%) was that training resource availability affects effectiveness of teaching EEP lessons. Another 17.6% explained that resource availability affects the pace of teaching EEP lessons, while 5.9% explained that resource availability influences learners' performance in EEP evaluation. Lastly, 2.0% explained that resource availability affects the diversity of teaching methods that teachers can use.

Table 3: Influence of Training Resource Availability in Implementing EEP

Opinion	Explanation	Frequency	Percent
Yes (96.2%)	Training resource availability affects diversity of teaching methods	1	2.0
	Training resource availability affects the pace of teaching entrepreneurship	9	17.6
	Training resource availability affects effectiveness of teaching entrepreneurship	36	70.6
	Training resource availability influences learners performance	3	5.9
No (3.8%)	Not applicable	2	3.8
	Total	51	100

Table 4 shows suggestions offered by respondents regarding training resource mobilisation. The responses constellated around four salient themes. The majority (38.9%) suggested encouraging the use of locally available resources and materials, a moderate number (31.4%) suggested the establishment and strengthening of SBCs, while 13.0% advocated involving the private sector to fund entrepreneurship education. A further 9.3%

suggested approaching donors to solicit funds. Responses allied to the themes 'establish/strengthen SBCs in TTIs' and 'encourage use of locally available resources and materials' received the greatest support of a combined 70.2%.

Table 4: Suggestions for Training Resource Mobilisation

Suggested Action	Frequency	Percent
Establish/strengthen SBCs in TTIs	17	31.4
Encourage use of locally available training resources and materials	21	38.9
Involve private sector to fund entrepreneurship education	7	13.0
Solicit funds from donors	5	9.3
No response	4	7.4
Total	54	100

Polarised opinions were sought regarding the programme's full implementation. Denial of full implementation elicited explanation, with particular reference to the implementation status within respective respondents' institutions. The explanation offered congregated around five distinct themes, as represented in Table 5. The majority (88.9%) of respondents stated that the programme had not been fully implemented, while a few (11.1%) stated that it had. The majority (70.4%) of respondents who denied full implementation attributed the failure to inadequate training resources, and 9.3% attributed it to theoretical rather than practical teaching of entrepreneurship education. Another 3.7% said it was due to failure to establish entrepreneurial networks or to involve entrepreneurship practitioners, and 1.9% said that it was occasioned by failure to develop learners' entrepreneurial potential. Another 1.9% attributed the failure to the curriculum, explaining that it was not student-centred.

Table 5: Implementation of Entrepreneurship Education Programme

Opinion	Explanation	Frequency	Percent
No (88.9%)	Learners' entrepreneurial potential has not been developed	1	1.9
	Entrepreneurship education is taught theoretically, not practically	5	9.4
	Entrepreneurship education curriculum is not student-centred	1	1.9
	Failure to establish entrepreneurship network and involve practitioners	2	3.8
	Inadequate training resources	38	71.7
Yes (11.1%)	Not applicable	6	11.3
	Total	53	100

A factor analysis was run to find out which of the four resource availability factors shown in Table 2 had the greatest role in determining the influence of resource availability on implementation of EEP in TTIs. Table 6 shows the one component extracted using principal components analysis. This was 'TTIs require sufficient resources for teaching entrepreneurship', and the single component explained 57.2% of the variance in EEP implementation.

Table 6: Factor Analysis for Influence of Availability of Training Resource on Implementation of EEP

Factor	Factor Loading	Eigen Value	% of Variance	Cumulative %
TTIs requires sufficient training resources for teaching entrepreneurship	.887	2.288	57.198	57.198

Regression Model

The model summary and coefficients used to build the regression model are shown in Tables 7a and 7b.

Table 7a: Model Summary of Implementation of EEP

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.143 ^a	.021	.001	.192
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Predictors: (Constant), Availability of Training Resources
Dependent Variable: Implementation of EEP_b

Table 7b: Coefficients^a

Model	Unstandardised coefficients		Standardised coefficients	t	Sig.
	B	Std error	Beta		
1 Constant	1.171	.203		5.766	.000
Availability of Institutional Training Resources	.046	.044	.143	1.035	.035

a. Dependent Variable: Implementation of EEP. $Y = 1.171 + 0.143RA$

Where Y = Implementation of EEP, RA = Resource Availability

The model was significant at 5%. It showed that for a unit increase of resource availability, implementation of EEP increases by 0.143 units.

DISCUSSION

The objective of the study was to examine the effect of availability of training resources on EEP implementation in TTIs in Kenya. The findings confirm that availability of training resources had a positive effect on EEP implementation. They also show that EEP had not been fully implemented. There was a strong agreement among the respondents that EEP required unique teaching resources different from those needed for other disciplines. Implementation of EEP required an autonomous department, unique non-human teaching resources, and sufficient human resources, which include teachers and the local business community. To secure a reliable availability of these resources, a dependable source of recurrent financing is necessary.

The agreement by most respondents that EEP requires an autonomous department means that departmental autonomy is a desirable organisational structure for a progressive strategy of EEP implementation. Morris *et al.* (2013) posit that as an entrepreneurship development programme (such as EEP) grows, it becomes increasingly necessary to give it more organisational independence. Entrepreneurship development should be a central theme in the vision and mission statements of an EEP; this requires that EEP frontline implementers should have sufficient organisational leverage to negotiate for EEP resources exclusively. This relates to the design of an autonomous entrepreneurship department in order to ensure successful EEP implementation. In view of this, entrepreneurship educators in newly established TTIs are responsible for initiating mechanisms to accelerate recognition of entrepreneurship as a legitimate academic discipline in its own right (Neck *et al.*, 2014; Morris *et al.*, 2013). Entrepreneurship educators in already established TTIs which do not have an autonomous entrepreneurship department should also take the same responsibility and ensure legitimisation of the discipline of entrepreneurship. This will help to entrench sustained motivation in programme implementation. Embedding EEP in another already existing programme greatly limits chances of its success, as it naturally takes on the character of the foster-parent programme, and is treated in all respects as the accommodating programme (Nkirina, 2009). The uniqueness of entrepreneurship education and training under such circumstances fizzles out, and its intended impact in the economy may hardly ever be realised.

Most respondents suggested establishment or strengthening of an SBC in their TTIs. These suggestions are consistent with good practice entrepreneurship training, the kind advocated by Jones and English (2004). In line with this logic, Neck *et al.* (2014) advocate the use of teaching methods that are more closely related to real entrepreneurship practice. The role of an SBC is critical in EEP implementation. Technical training institutions which do not have any SBC need to establish them; in this respect, they may need to benchmark with other TTIs where they are already operational to develop best practice SBC administration. Where an SBC may be present, it may need to be strengthened through staffing, equipment and any necessary organisational restructuring, and these SBC-level resources need to be periodically updated in line with changing economic realities. A functional SBC will facilitate EEP implementation through enabling TTI trainees to integrate the theoretical concepts of entrepreneurship with practical business realities. To a reasonable extent, it will also serve as a technology transfer centre, offer business consultancy services, and assist budding entrepreneurs, both within the TTI and in the community surrounding the TTI, to understand the process of commercialising innovations. Thus, by

exposing trainees to the evolutionary process from idea generation to venture implementation, SBCs assist in developing a wholesome entrepreneurship concept.

The findings also show that availability of training resources affects EEP implementation through the pace and effectiveness of teaching. These findings are in resonance with Isaacs *et al.* (2007), who also observed that some of the setbacks which hinder effective EEP implementation are inadequate and low quality human and physical resources. They advocated deployment of resources to offer an improved entrepreneurship education which can make significant contribution to employment creation and poverty alleviation. Training resource availability also determines the diversity of teaching methods that educators may use, and these factors ultimately determine how well the learner performs when placed in a real economic environment. A limited resource availability constrains the ability of teachers to teach entrepreneurship education properly, their enthusiasm notwithstanding (Sathorar, 2009). Free access to sufficient resources accelerates learning, because it influences presented content, methodology and retained content (Luyima, 2010). Teaching starts with teachers' access to the appropriate instructional materials. Lack, inadequacy or delayed provision of requisite resources impedes teaching, and hampers implementation of EEP and the envisaged development of entrepreneurial skills, entrepreneurial orientation and entrepreneurship culture. Thus, resource availability has a direct impact on EEP implementation.

Encouraging the use of locally available training resources and materials rhymed very well with respondents. Local resources and materials include both human and non-human resources, located both within the TTI and also outside the boundaries of its organisational structure, usually in close geographical proximity. Lockett *et al.* (2017) underscored the usefulness of networking with the business community as an important strategy for triggering interest in entrepreneurship practice. In their study they found that social networks and associated informal learning are critical in developing social capital important to a student's entrepreneurial progress. Mansor and Othman (2011) demonstrated that the use of a triangular network involving business operators, entrepreneurship educators and entrepreneurship students is a significant approach to give learners the important experience in real business activities, while at the same time benefiting the businesses from students' consultancy assistance and higher education faculty experts' knowledge. Some of the unique resources Parsley and Weerasinghe (2010) identified for entrepreneurship education include outreach links with the business community.

The geographical space surrounding TTIs houses practicing entrepreneurs who operate business ventures of different sizes, at different stages of growth, in different economic sectors, and of different business registration status. Naturally, the entrepreneurs themselves are of different ages, come from different family backgrounds, have different vocational interests, and harbour varying visions and missions for their business ventures. This plethora of demographic composition is important because TTI trainees can identify with the practitioners, since their diversity is mirrored in the practitioners' diversity. Therefore, trainees can locate support for their unique business-related interests in the entrepreneurship habitat. The process of training must therefore include opportunities for face-to-face interaction between trainees and practitioners in their natural economic settings. The practitioners' personal narratives of their successes and failures help to demystify the entrepreneurial process and are important motivations for trainees considering an entrepreneurial career path.

For the entrepreneurship practitioners, interaction with TTI trainees and their trainers gives them an opportunity to replace moribund aspects of venture operation and management with new and more effective techniques. Thus interaction with the academia helps practitioners to be current with changing production technologies. This symbiotic relationship is in line with both Network Theory and Resource Dependency Theory. For EEP to increase the resource dependency of the environment on it, it should enhance its marketable content through intensifying and diversifying its consultancy services. Intensity can be accomplished through increasing consultancy depth, which is particularly important for start-ups and nascent ventures. Diversity can be achieved through increasing the variety of consultancy services (consultancy breadth). In this way, EEP will raise its importance in the local environment as a strategic resource provider.

Besides establishing or strengthening SBCs and utilising local resources, other suggestions to ensure availability of training resources included involving the private sector and donors to fund the programme. These suggestions seem to allocate the responsibility of resource sourcing to the TTI administrations at the institution level in order to ensure that the programme is adequately resourced. The findings of several studies resonate with these suggestions (Sathorar, 2009; Isaacs *et al.*, 2007; Parsley & Weerasinghe, 2010; Nkirina, 2009; Niyonkuru, 2005). As a result of similar findings, Sathorar (2009) belaboured the necessity of resources as one

of the main elements of entrepreneurship education. She stressed that it becomes a unique problem when entrepreneurship has to compete with other teaching subjects for limited resources.

Powell *et al.* (2015) found that higher education institutions in the US were resource-constrained, and Mihi-Ramírez (2016) observed that similar institutions in Spain were resource-challenged, and Parsley and Weerasinghe (2010) found that the same situation obtained in Kenya. In Nigerian universities, one of the dominant impediments to institutionalisation of entrepreneurship education was lack of funds (Alarape, 2008). To address the problem of capitalisation, Parsley and Weerasinghe (2010) emphasised that a budgetary allocation dedicated to entrepreneurship education, and established financial commitments towards entrepreneurship education, are important requirements for implementing EEP. Short-term resource support means a limited commitment to long-term development of entrepreneurship education. This underscores the need for an effective communication channel between policy implementers and policy designers, to ensure that requisite resources for entrepreneurship teaching are availed. This is in line with the Network Theory, which locates resource stakeholders in a common pool, and each player can negotiate their case to acquire the resources they need. In this respect, EEP ambassadors must convincingly champion the case for adequate resource allocation in order to discharge the mandate of supplying entrepreneurs for national development.

The interdependence between EEP and the TTI administration mesh well with both network and resource dependency theories. On the one hand, EEP can employ means of organisational advocacy and lobbying to maximise its share of resource allocation from the TTI administration. At the same time, it can strategise to increase its resource autonomy by running its own profitable income generation activities, such as offering courses demanded by the job market and charging appropriate fees, which can be used to supplement government allocation. This strategy requires market research to identify market gaps which TTI entrepreneurship departments (Powell & Rey, 2015). The percentage of accrued income passed on to the TTI administration will demonstrate the dependence of the TTI administration on EEP for resources. It is also dependent on EEP through entrepreneurship consultancy services to improve its administrative efficiency and effectiveness.

Both Resource Dependency Theory and Network Theory resonate with the idea of networking with entrepreneurship stakeholders in the environment, who include entrepreneurship practitioners, the private sector, donors and the government. The contribution of EEP to the economic functions of environmental inhabitants through its outputs in the form of entrepreneurially adept TTI trainees and graduates is a point of negotiation with the view to channelling resources towards the programme. However, if EEP graduates are perceived to be incompetent by the environmental inhabitants, any convictions they may have about the usefulness of the programme will dissipate, and the challenge of insufficient resource provision will likely persist.

The overriding theme in the findings of this study is that sufficient and appropriate teaching/training resources are an imperative for EEP implementation. In addition, these findings emphasise that for successful implementation of EEP, there is need for policy interventions to guarantee adequate and timely provision of human and non-human resources, because EEP is relied upon to change the economic fortunes of TTI graduates and, by extension, the nation. It is noteworthy that the government repeatedly expresses concern about the national economy, undertakes flagship projects that have potential for producing income generation ventures, and pledges support for efforts that promise returns in terms of economic development. For this reason, it should prioritise interventions to correct the anomaly of constrained resource provision in EEP implementation. Investment in entrepreneurship education is a foundational imperative that will foment success of subsequent economic initiatives.

CONCLUSION AND RECOMMENDATION

This study set out to examine the effects of training resources on implementation of EEP in TTIs in Kenya. A positive effect of training resources on EEP implementation was found to exist. However, EEP has not been fully implemented because of insufficient training resources. Implementation of EEP requires resources that are uniquely different from other training disciplines. It requires an autonomous department, an SBC (entrepreneurship centre), trained teaching staff, outreach links and networks with the local business community, a budgetary allocation dedicated to entrepreneurship education, and established financial commitments towards entrepreneurship education. Short-term resource support means limited commitment to long-term development of entrepreneurship education.

In line with the network and resource dependency theories, the symbiotic relationship between EEP and its enablers or financiers places a duty on the programme to justify resource advancements, by demonstrating utilitarian value creation through its process outputs. Process outputs include EEP trainees and graduates. EEP trainees should be able to apply their acquired entrepreneurial competencies to improve operation and management of business ventures within the institution and the surrounding community. EEP graduates should be able to champion national economic transformation in their post-training career engagements.

TTI administration at the institutional level should enact interventions for resource mobilisation to ensure that EEP is adequately resourced. The government should enact a resource-guarantee policy to ensure that EEP trainees are enabled to develop the requisite competencies to create jobs in the economy. This will result in competent graduates who are entrepreneurially empowered to start and grow small business.

At the start of a proper implementation, and for some time afterwards, EEP is a significant cost centre of a TTI, and the perception of teaching staff in other programmes should be studied to discover how their attitudes towards its demand for unique resources may affect its success. In addition, a research should be conducted into the influence of TTI management on the success of EEP implementation.

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