RESEARCH ARTICLE

NETWORK COMPETENCE AND INTERNATIONALIZATION OF SERVICE FIRMS IN UGANDA

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ARTICLE INFO	ABSTRACT
	The sparse research on internationalization of services in the least developed world hinders development of clear guidelines for service firms to seize internationalization opportunities. We use the Network Competence Model to explain internationalization of service firms in Uganda. We established low levels of network competence, network relationship intensity and internationalization among Ugandan service firms. Significant positive relationships existed between the variables. Network competence and network relationship intensity explained 54% of the variance in internatiotionalisation. The measurement and structural equation models had good fit to the data. We give theoretical and managerial implications and highlight major issues for further investigation.

INTRODUCTION

The services sector today plays an increasingly important role in the growth and development of any country (UNCTAD, 2011). Services are becoming crucial not only in a country's development but also in the achievement of the Millennium Development Goals of poverty reduction and access to basic services. The World Bank has indeed acknowledged the contribution of the services sector to poverty reduction than the contribution of the agriculture and manufacturing sectors (World Bank report, 2012). The Uruguay round of the World Trade Organizations that reduced national restrictions placed on the international marketing of services has further facilitated the growth in services, making services the fastest growing segment of global trade. The 2011 World Development Indicators show that the services sector accounted for almost 71% of global GDP in 2010 and is expanding at a quicker rate than the agriculture and the manufacturing sectors. The relative resilience demonstrated by trade in services in the latest financial and economic crises (in terms of lower magnitude of decline, less synchronicity across countries and earlier recovery from the crises) has further led many countries to incorporate services trade into their post-crisis national trade and growth strategies (UNCTAD, 2012). While service trade presents a new frontier for enhancing developing and least developed countries' participation in international trade (Kiss et al., 2012), positively integrating these countries into the global services economy and increasing their participation in services trade remains a major

development challenge (UNCTAD, 2013). Given the multifaceted contribution of services to national economy and trade, it is important to design and implement a services-driven development strategy within a coherent and comprehensive policy framework, thus the need for research in internationalization of services in developing and least developed countries (Botswana Institute for Development Policy Analysis, 2000; Tendy, 2011). Indeed, research on internationalization of service firms has received much attention from international marketing and international business researchers (Chandra et al., 2012).

Even though the internationalization of firms has been studied extensively (Chandra, Styles and Wilkinson 2012; Kearney, 2012), the internationalization of service firms from developing and least developed countries has received less attention and academic inquiry. Statistics from the international service trade indicates that service internationalization is dominated by America, Europe and Asia, with Latin America and Africa lagging significantly behind (Uganda national export strategy report 2012; Alexander Vogel and Joachim Wagner 2012). Least developed economies share only 5% of the cross-boarder service exports (Conrad, 2005). In Uganda, the IMF-World Bank (2012) statistics indicate the services contribution to Uganda's exports as below 10%. Emphasis has been on agricultural and industrial output without giving reciprocal attention to the service sector. The increase in Uganda's exports has always been attributed to the traditional and non-traditional exports yet nothing is mentioned about services (Uganda Bureau of Statistics, 2008). For this reason, research in services

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internationalization in these economies has remained low. Developing empirical research on internationalization of services, based on strong theoretical underpinnings remains a challenge (Kamakura et al., 2011). The unique nature of services calls for a service specific context of internationalization thus it is not surprising that the direct applicability of the traditional internationalization models to the service sector has remained questionable (Johanson and Valhne, 2012). Since internationalization of service firms requires capacity to create strong networks (Danis, De Clercq and Petricevic, 2011), this study posits that network competence could give a better explanation, and therefore a better antecedent to internationalization of service firms in the least developed economies like Uganda. There are however limited efforts to create service export networks in developing countries (Conrad, 2005; Uganda Service Exporters Association, 2005), neither have we seen adequate research that links networks to service firm internationalization. Freeman's (2012) work has been regarded one of the so many attempts, and has thus far been the valuable contribution to reducing the scanty knowledge about networks and internationalization, but the role of Network Competence in internationalization of service firms is not sufficient, and studies in this area in third world economies are not evident. We attempt to explain internationalization of service firms using the network competence model by investigating the extent to which network competence affects internationalization of service firms in a least developed country - Uganda. We also explore the mediating effect of network relationship intensity on the relationship between network competence and internationalization.

Literature

Network Competence and Internationalization

In today's globalized trade regime, networking is a required response to intensified global competition, and joint action is essential for responding successfully to major challenges in business involving developing countries (Rutashobya and Jaensson, 2010; Moti, 2011). As service firms are considered the catalyst for export growth for developing countries, there is a compelling case for networking amongst Sub-Saharan African firms (Fernhaber, 2013). Firms in the least developed countires may have to rely on networks and relationships to overcome their size disadvantages as they internationalize (Rutashobya and Jaensson, 2010). Networks could be seen as providing a competitive advantage to small firms, because of possibility of resource sharing and learning among network members that could enable them minimize their size disadvantages (Freeman S. 2012). Acting in a network context, Service exporters can penetrate and increase their share of foreign markets at reduced cost and risks, improve their profitability, achieve productivity gains, and accumulate knowledge through various types of joint action and overcome export trade impediments and further marginalization (UNIDO, 2007; Martina, 2013; Ellis, 2011). Networking has been established as an important source of small- to medium-sized enterprises (SMEs) business expansion in many developing economies. Often, it provides the necessary intelligence leading to internationalization (Zizah Che Senik et al., 2011). Because learning cultural and institutional differences take time, the internationalization process tends to

be gradual and incremental. Research shows that network ties and competence are an important resource facilitating internationalization, especially among service firms with limited resources for internationalization (Kontinen and Ojala, 2011). In the network theory, internationalization is seen as an entrepreneurial process that is embedded in an institutional and social web which supports the firm in terms of access to information, human capital and finance among other things (Tang, 2011). The companies develop their capabilities throughout the entire network and improve their international competitiveness. In organizational settings, networks may involve social relationships among individuals embedded in a formal structure of business connections or an informal structure of personal relations bounded in geographical, social, or institutional spaces (Kearney, 2012). Vascilchenko and Morrish (2011) suggest that the role of social networks is not just limited to initial foreign market selection and entry but enable firms to internationalize further in existing international markets. Service firms internationalizing from developed countries tend to effectively utilise inter-personal networks to internationalise (Dib et al., 2010), a component that is not fully expoited by service firms in developing countries (Payan et al., 2011).

Attention to networks is powered by the notion that firms cannot survive and prosper solely through their individual efforts, and that each firm's performance depends upon the activities and performance of others. Hence, the nature and quality of the direct and indirect relationships that a firm develops with its counterparts is fundamental to managing complex networks involved in internationalization of service firms (Naudé 2012). Network competence is reflected to be a company-specific ability to handle, use, and exploit and manage inter organizational relationships (Ritter and Gemünden, 2010; Krautheim, 2011; Martina, 2013). Firms are embedded in networks of cooperative and competitive relations with other organizations. Within these networks the interorganizational relationships are long-term arrangements, maintained for some overall functional purpose. Ritter et al. (2010) noted that the term competence is used to describe resources and preconditions necessary to perform certain tasks without considering the actual execution of the task. They also recognize competence as a process and incorporate both aspects in their conceptualization of network competence. Hence, their definition seeks to include both having the necessary knowledge, skills, and qualifications as well as using them effectively. They further distinguish between the tasks that need to be performed in order to manage a company's technological network and (on the other hand) the qualifications, skills, and knowledge that are needed in order to perform these tasks. The latter are referred to as "qualifications".

Within these networks the interorganizational relationships are long-term arrangements, maintained for some overall functional purpose. However, according to Ritter et al. (2010) there appears to be substantial differences in the ability of firms to deal with networks. The concept of network competence draws from the general network theories. Although empirical evidence on networks and internationalization is ambiguous (Schwens, 2010), there is significant support for the positive influence of networking on internationalization (Gillian and Jay, 2006; Johanson, 2004).

Foreign markets can be viewed as networks, with the firm intending to internationalize dependent upon its connected actors and their interactions. Networks allow the firm access to information, experience and knowledge about international markets without gaining own experiential knowledge (Johanson and Vahlne, 2011), and enhance the firm's scope, speed and extent of internationalization activities (Autio and Sapienza, 2000). While networks have been widely studied, the studies have mainly been done from a sociological perspective (Chen and Chen, 2004). Little is known about the role of people in building and developing the networks. Rugman et al,2012 distinguishes between core (a "must have" in order to run the business) and distinctive competence (a competence that differentiates the firm from its competitors) whilst citing the importance of socialisation, cost reductions that stem from collaborative relationships, network competence as an asset, and mutual learning in competence development. Moreover, it is argued that most discussions on core competence are very ethnocentric, and the *imbeddedness* (the width and dept of the devotion to the network) of the firm in networks of exchange relationships and how that impinges on its core competence development is not taken into account. This position results in the introduction of a modified model of competence development through a network of exchange relationships.

Importantly, this approach appears to be different from what Ritter and Gemünden (2010) suggest, because it refers to the development of competence through networks and not network competence as a competence in itself. Rugman's approach assumes that the firm's competence development is influenced by its interaction with others. This depends on: (a) the transfer of elements, including product/service exchanges, information exchanges, financial exchanges and social exchanges between interacting parties; (b) mutual learning as a result and driver of exchanges and (c) mutual adaptations that all parties involved may choose to make in a quest for optimization /maximization. In this continuous cycle the competence of the interacting parties may develop over time. This suggests that although each actor has his own interests at heart, and will seek to promote those interests, in a situation where parties understand the interdependence of the network, they may well be mindful of how they conduct themselves to benefit (not harm) the network. Hence, the learning that comes from other parties in the network is very important, since the activities of actors are interconnected. Any actor's inability to meet customers 'demands might have a profound effect on the others with whom they interact, especially their immediate trading partners.

It is suggested that this argument points to the immense importance of network thinking and particularly towards the network competence of firms. A key question remains: Why and how are firms able to build up and use networks of relationships that contribute to competitive advantage? Yufeng (2011) suggest that the answer to this question is to be found partially in the notion of "network competence," and that this can be measured along two key dimensions: (a) The degree of network management qualifications, which can be of either a specialist nature or a social nature and (b) the execution of network management tasks which are either relationship-specific or cross relational. Hence, the definition of network competence refers to the sum of how well the firm is qualified

to operate in a network(s), combined with how well network management tasks can be executed. Network qualification suggests a collection of resources; whilst network management task execution refers to the ability to employ these resources to synergistically operate within a network. Combined this constitutes a competence – network competence. The competence to develop, manage and sustain the network relationships is a critical barrier to internationalisation of most firms (Tendy Matenge 2011). While the nature and development of network relationships are well documented in developed countries, the concept of network competence has not been well researched in developing countries, (Zhaoquan and Chen, 2013). Following the above debate, we hypothesize that;

H1: *Network competence of a service firm positively relates to internationalization of that firm.*

H1a: *The network task execution competences of a service firm positively relate to internationalization of the firm*

H1b: *The network management attributes of a service firm positively relate to internationalization of the firm*

Network competence, Network relationship intensity and internationalization

Networks are important in identifying opportunities (Johansson & Vahlne, 2011). We use the term network in line with Chetty and Agndal (2007) who refer to interconnected relationships between different agents. We also define network relationships as dyadic relationships between two agents, particularly through social relationships. The degree to which individuals are enmeshed in the network is referred to as embeddedness (Granovetter, 1985). The embeddedness, or level of strong and weak ties in networks (sometimes referred to as weak and strong relationships), can enhance the ability of entrepreneurs to acquire resources (Batjargal, 2010). Melén, 2009 suggests that the strength of the tie is a "combination of the amount of time, the emotional intensity, the intimacy and the reciprocal services that characterize the tie" (p.1361). These ties are either weak or strong. Strong network ties have high levels of social relationship or personal interaction with high frequency (Hilmersson, 2011). The strong network ties mean that members are motivated to be of assistance and protect actors in insecure positions (Hite & Hesterly, 2010). Weak ties, however, are not as heavily based on personal interaction among members of the network but may provide strategic advantage in terms of resource availability (Joachim et al., 2010).

The importance of network relationships in internationalization of firms is well recognized (Johanson & Vahlne, 2011; Sandberg, 2012). Network relationships between firms or individuals are especially critical for the internationalization of service firms' especially small high-technology firms (Coviello, 2011). Being linked to a network is not the only issue; one must be in a position to do something within that network. A relationship with someone who has a strong social position and reputation in another territory can help build trust, awareness and visibility in that territory (Maria et al., 2013). A relationship that is centrally located within the networks of a territory will be more than one that is peripherally attached. A number of sources of this strength of embeddedness within networks have been noted (Hite, 2003).

Structural embeddedness comes from the overlap of social relations, cognitive embeddedness reflects how much people share mental models and ways of thinking with others, and cultural embeddedness reflects their sharing of beliefs and values (Johansson and Kao, 2010). The strength of the firm in the network depends on how well it is linked with the parties that are vital to achieve the organizational goals, thus it is possible that a firm's position in the network is is determined by the nature of the direct and indirect relationships it has with other actors in the network. The activities of the various actors in international markets are crucial elements of the foreign market entry process of a service firm (Schwens 2010). Pla-Barber and Escriba-Esteve (2006) identified the key actors as suppliers, customers, competitors and institutions, and indicated the influence these relationships have in the firm's internationalization. Thus part of the effects of network competence on internationalization works via network relationship intensity.   Studies that have tested for the mediating role of network relationship intensity are not known of, thus; Network competence is considered to be a company-specific ability to handle, use, and exploit interorganizational relationships between different stakeholders (Ritter and Gemünden, 2010). This recognizes that firms are embedded in networks of cooperative and competitive relations with other organizations (Moller and Rajala, 2007). Within these networks the interorganizational relationships are long-term arrangements, maintained for some overall functional purpose. However, according to Ritter et al. (2010) there appears to be substantial differences in the ability of firms to deal with networks. We therefore hypothesize as follows;

H2: *Network competence of a service firm is positively related to the intensity of the network relationships of the firm*

H3: *The intensity of network relationships is positively related to internationalization of a firm*

H4: *The network relationship intensity of a service firm mediates the relationship between network competence and internationalization of a firm.*

MATERIALS AND METHODS

Research design and sample

This study was a cross-sectional survey, with data collected across the service industry (see table 1). Consistent with earlier internationalization studies, top executives in the service firms formed the unit of inquiry.

Table 1. Sample spread across the industry groups

Service category	Freq.	Percent (%)
Education and Training	24	12
Engineering and construction	23	11
Tourism and travel	31	15
Transport and Distribution	23	11
Business and legal consultancy	27	13
Information Technology	26	13
Recreation, culture & sporting	18	9
Health services	19	9
Event management & P.R	16	8
Total	207	100

Note: The above categorization of the groups is base on the WTO – GATS classification *"W/120"* list, the USEA (2005) services classification as well as classifications as per earlier scholars like Groonroos (1999) and Clark et al. (1996).

Out of the targeted sample of 312 service firms, 207 firms responded, a response rate of 66%. There was no significant difference between early and late respondents on the variables of interest (p<0.05).

Measures and scores

Network competence scales were adapted from Gemuenden and Ritter (1997). The composite network competence scale yielded a Cronbach Alpha of 0.88. Network Relationship Intensity was constructed using scales adapted from Pla-Barber and Escriba-Esteve (2006) and yielded a Cronbach Alpha of 0.94. Internationalization was measured in terms of scope, speed and extent (Pla-Barber and Escriba-Esteve, 2006; Schwens, 2010) and yielded a Cronbach Alpha of 0.84. The correlations between each of the measurement scales and the corresponding overall rating were significant (ranging between r = 0.61 to r = 0.87), hence the instrument had convergence. The correlations between the dependent and independent variable scales were low (the highest being r = 0.24), suggesting discriminant validity. We revised some scales to fit the local context of the study. Responses to all item scales were anchored on a five point scale.

Ethical considerations and Data Collection procedures

Participation in this study was voluntary and no firm's name was mentioned. Data were collected using pre-coded self report questionnaires and interview guides. To avoid common methods bias, three respondents in each of the firms were requested to fill the questionnaires, and the responses on the key study variables were given different response formats (Podsakoff, MacKenzie and Lee, 2003). Data on internationalization was collected from the chief executive, while that on network competence and network relationship intensity was from the other two executives in each firm.

Statistical Analyses

Data was entered in and analyzed using SPSS version 17. The major assumptions of parametric data as well as tests for the assumptions of multiple regression analysis held: - that is normality, linearity and homoscedasticity. Exploratory Factor Analyses was conducted using the principal component analysis with varimax rotation to empirically verify the network competence dimensions in the Ugandan setting. We considered Factor loadings of 0.512 and above as significant (Stevens, 1992). We extracted items with eigen values greater than 1.0, and the factor analysis yielded distinct and reliable factors (Hutcheson and Sofroniou, 1999). We correlated the variables to establish their relationships, and followed it up with hierarchical regressions (Field, 2006) to establish the prediction potential of the model. We tested for mediation of network relationship intensity on the relationship between network competence and internationalization following Baron and Kenny's (1986) methods. We observed the linear relationships between the predictors to spot too high correlations, and also derived the tolerance values and variance inflation factors as a way of ruling out cases of multicollinearity. There were no serious risks for multicollinearity, since all correlations were below 0.7 (Anderson, Sweeney and Williams, 1996). The tolerance values were all above the recommended cut-offs of 0.10

Table 2a. Sample Characteristics

Variable/values (N =207)	Freq.	%	Mean	S.D	Var	Min	Max.
Ownership status of firm:			1.9	1.6	2.5	1.00	5.00
Local owned (100%)	77	72					
Foreign owned (100%)	3	3					
Jointly owned	27	25					
Age of firm (no. of years in existence):			2.6	1.3	1.6	1.00	5.00
1 – 5 years	7	6.5					
6 – 11 years	62	58					
12 – 17 years	24	22					
18 – 22	7	7					
Over 22 years	7	6.5					
International experience			2.1	.39	.16	2.00	4.00
0 years	0	0					
1 – 6 years	84	88					
7 – 10 years	11	10					
11 – 20 years	2	2					
Over 20 years	0	0					
Firm size (no. of people employed)			1.8	1.0	1.1	1.00	5.00
Below 30	52	48					
31 – 50	41	38					
51 – 80	5	5					
81 – 100	4	4					
Above 100	5	5					
No. of foreign employees			1.3	.60	.36	1.00	5.00
None	80	75					
1 – 20	24	22					
21 – 30	2	2					
31 – 40	0	0					
Above 40	1	1					

Table 2b. Sample characteristics cont.

Variable/values (N = 207)	Freq	%	Mean	S.D	Var.	Min.	Max.
Ever engaged in internationalization?			1.8	.38	.15	1.00	2.00
Yes	88	82					
No	19	18					
Speed of internationalization			2.9	.37	.14	2.00	5.00
Over 20 years	0	0					
11 – 20 years	2	2					
7 – 10 years	98	91					
1 – 6 years	5	5					
0 years	2	2					
Extent of internationalization			1.8	.98	.95	1.00	4.00
25% and below	57	53					
26 – 40%	26	24					
41 – 60%	15	14					
61 – 75%	9	9					
Over 75%	0	0					
Scope of internationalization			1.7	.74	.55	1.00	5.00
1 – 3 countries	43	40					
4 – 10 countries	57	53					
11 – 25 countries	3	3					
25 – 35 countries	3	3					
Over 35 countries	1	1					
Form/mode of services internationalization*							
Cross-border	72	67					
Consumption abroad (clients travel from abroad to use the services)	77	72					
Consumption abroad (services provided to foreign organizations in Uganda)	66	61					
Commercial presence	16	15					
Movement of natural persons	48	45					

* This was a multiple response question (i.e. the respondents were allowed to tick more that one alternatives)
** A firm can adopt more than one form of services internationalization. Thus this was also a multiple response question.

(Hair et al., 1998). All the variance inflation factors (VIF) were close to 1.00, and less than 10, which was satisfactory (Bowerman and O'Connell, 1990). The Durbin-Watson statistic of 2.13 justified the assumption of independent errors (Field, 2006).

RESULTS

Descriptive findings

Tables II (a) and II (b) present the frequencies and the descriptive statistics relating to sample characteristics. In table

II (a) majority of the firms were locally owned (72%). Many firms (58%) were 6-11 years old, while majority had an international experience of less than 10 years (98%). It is further evident that 75% of the firms did not have any foreign employee. Majority firms (86%) had below 50 employees, an indication of the small size of the service firms in Uganda. In table II (b) 82% of the firms had ever engaged in internationalization while majority (91%) had their first international engagement after 7- 10 years of operation. 77% of the firms had a percentage of foreign sales to total sales of 40% and below. Only 7% served more than 10 foreign

Table 3a. Zero order correlations

	Mean	S.D	1	2	3	4	5	6	7	8	9	10	11
1. Coordination	3.12	0.50	--										
2. Initiation	3.00	0.71	0.45**	--									
3. Exchange	3.10	0.50	0.52**	0.55**	--								
4. Evaluation	3.02	0.40	0.53**	0.47**	0.66**	--							
5. Organizing	2.71	0.62	0.55**	0.52**	0.48**	0.59**	--						
6. Staffing	3.30	0.50	0.57**	0.50**	0.51**	0.51**	0.67**	--					
7. Expert knowledge	3.20	0.41	0.19*	0.19	0.28**	0.24*	0.16	0.27**	--				
8. Experience	3.30	0.60	0.12	0.08	0.04	0.19*	0.05	0.09	0.25**	--			
9. Interpersonal skills	2.91	0.40	0.08	0.18	0.09	0.23*	0.24*	0.19*	0.35**	0.13	--		
10. Conflict mgt.	3.00	0.41	0.07	0.06	0.06	0.06	0.01	0.13	0.38**	0.29**	0.48**	--	
11. Internationalizatn	2.40	0.42	0.28**	0.41**	0.33**	0.26**	0.33**	0.35**	0.08	0.13	0.08	0.08	--

N = 207 ;   ***p < 0.001 ; **p < 0.01 ; *p < 0.05

Table 3b. Zero order correlations cont.

	Mean	S.D	Var	Min.	Max.	1	2	3
1. Network Competence	3.08	0.30	0.09	2.70	4.50	1.00		
2. Network Rel. Intensity	3.20	1.00	1.10	1.00	5.00	0.43***	1.00	
3. Internationalization	2.40	0.42	.160	1.40	3.30	0.36**	0.46**	1.00

N = 207 ;   ***p < 0.001 ; **p < 0.01 ; *p < 0.05

markets. The foreign markets mainly included East African Countries and the COMESA region. Few firms (6%) operated outside Africa, and these served the Asian markets mainly India, China, Malaysia, Singapore, Srilanka and Japan. Other markets included Iran, Pakistan, Dubai, London, Belgium, Netherland, USA, Australia, Canada and Germany. The major mode of internationalization adopted by Ugandan service firms was consumption abroad where clients have traveled from abroad to use the firm's services, accounting for 72%. Commercial presence accounted for the lowest form of service internationalization (15%).

Network competences, network relationship intensity and internationalization

The relationships between the study variables are indicated in the R-Matrix in tables III (a) and III (b). In table III (a) the relationship specific competences of initiation, exchange and coordination correlated significantly and positively with internationalization (r = 0.41, p < 0.01; r = 0.33, p < 0.01 and r = 0.28, p < 0.01) respectively, supporting H_{1a}. The cross relational competences also correlated significantly and positively with internationalization. Evaluation correlated at (r = 0.26, p < 0.01), organizing at (r = 0.33, p < 0.01) and staffing at (r = 0.35, p < 0.01), a further support for H_{1a}. The specialist competences (expert knowledge and experience) and the social competences (interpersonal skills and conflict management) did not correlate with internationalization, contradicting H_{1b}. Table III (b) indicates low levels of internationalization among the service firms in Uganda, with a mean value of 2.40 and standard deviation of 0.42. The mean values were 2.90, 1.80 and 1.70 for speed, extent and scope of internationalization respectively. The qualitative interviews were testimony to this;

"…We have not been very assertive to internationalize. At times we just find ourselves serving international clients simply because we have got the orders…" "…and the other factor is that there is a lot of ignorance amongst the owners of many service firms, they think that selling in international markets is such an impossibility, requires a lot of resources, and actually fear to invest in it because of so many other

reasons. But I think they are not aware that they have the power to sell their services to the world…"

Scholars like Vertica et al. (2011) considered such firms as reactive internationalizes that normally adopt a slow and gradual internationalization process. The findings further indicated that majority of those that had ventured into the international markets did so later in their organizational life cycle, and could therefore be classified as late internationalizes (Schwens, 2010; Karafyllia, 2010). Such firms take long to internationalize because they need to first accumulate their own experience overtime in order to induce their first foreign market commitments (Albornoz et al., 2012). The firms were worried of the liability of newness and foreignness and therefore needed to go slow into the international markets. This was inferred from the interviews with one of the executives of a respondent firm thus;

"…While we make all the efforts, and have the big dream to serve international markets, we have always felt we need to go slow. These markets are new to us and with different cultures. The firms already in these markets have been there for some time and it may not be easy for us to compete. We also need to understand the international customers better and first convince them that a service firm from Uganda can equally provide as good services as those by the firms from the developed world. Otherwise there are those that give us business because they have seen what we do in the home market when they come to Uganda, and whenever we receive such orders we respond quickly…"

The mean value for the composite network competence variable was 3.08, with a standard deviation of 0.31, indicating low network competence. The oral interviews with some respondents revealed the absence of network competent staff.

"…we need people with the art of creating connections with other people in the international markets, and who can use these connections to break into the international markets. We lack people who have this kind of expertise, knowledge and skills to sell to the international markets…"

Table 4. Mediating effect of Network Relationship Intensity

	Equation I:			Equation II:			Equation III:		
Dependent Variable: Internationalization									
	B	SE	Beta	B	SE	Beta	B	SE	Beta
Constant	1.52**	0.09		1.71**	0.09		1.43**	0.09	
Network competence	0.48***	0.09	0.49	0.29**	0.07	0.30	0.13*	0.06	0.03
Network relationship intensity							0.54**	0.09	0.55
N = 207 ; ***p < 0.001 ; **p < 0.01 ; *p < 0.05									

"....When it came to the final round to conclude the business negotiations, the other potential partner realized that non of us in the firm could speak Chinese, yet the kind of people we were to interact with understood mainly Chinese language, with very little English. It was late for us to recruit someone who understood the language, that is how we lost that deal,"

The composite network competence significantly and positively correlated with internationalization (r = 0.36, p < 0.01), providing support for H1. We also established a significant positive relationship between network relationship intensity and internationalization (r = 0.46, p < 0.01), providing support to H3. These findings are consistent with Freund, C. L., and M. D. Pierola (2010) who emphasized the need for network relationships in foreign market entry of firms. Martin Johanson, Pao T. Kao (2010), also established network relationships as one of the managerial strategies through which firms can access international markets. Table III (b) further shows a significant positive relationship between network competence and network relationship intensity (r = 0.43, p < 0.001), supporting hypothesis (H2). As Love, James H. and Panagiotis Ganotakis. 2010;Arndt, et al,(2012) clearly puts it, network competent firms normally learn from the experience of other firms and from the paradigms of interpretation, which enables them respond to internationalisation opportunities a bit earlier and faster. It is therefore deemed true that network competence may constitute a mechanism to reduce barriers to internationalisation by substituting a firm's own experience for the experience of the networks, or by getting access to the network partner's resources. An executive of one of the firms was indeed quoted as follows;

"...if you are going to be able to sell yourself to international markets and prove your worth in these markets, you have to be where your network partners are and keep these networks active and strong . Thus we endeavor to attend international trade shows and exhibitions. As I speak right now, we have a group of staff going to Spain ……. We do whatever it takes to participate in these networks actively, respond to emails and any other requests promptly."

Mediating effect of network relationship intensity

The mediator effect is presented in the three regression models indicated in table IV. The three regression equations in table IV provide the tests of the linkages of the mediation model. Baron and Kenny (1986)'s conditions for mediation held in the three equations. First, network competence affects network relationship intensity in the first equation (B = 0.48, p < 0.001). Second network competence is shown to affect internationalization in the second equation (B = 0.29, p < 0.01) which confirms that there is actually an effect to be mediated. Third, network relationship intensity affects internationalization in the third model (B = 0.54, p < 0.01),

with the coefficient of the mediator being significant in this equation with both network competence and network relationship intensity as predictors. Finally the absolute effect of network competence on internationalization is less in the third equation (Standardized Beta = 0.03) than in the second equation (standardized Beta = 0.30). Thus network relationship intensity is a true mediator of the relationship between network competence and internationalization, which confirms H4. The Wald statistic of 2.05 also indicated that the *b*-coefficient for the predictor (network competence) was significantly different from zero, indicating that there is partial mediation (Field, 2006). The Sobel, Aroian and Goodman tests were significantly different from zero confirming a partial but significant mediation (Preacher and Hayes, 2004). The mediation path is shown in figure I.
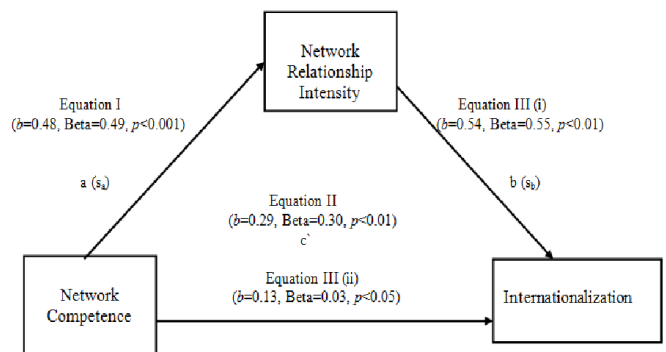

Fig. 1. Mediation path for network competence and internationalization

In figure I, it is noted that when network relationship intensity is introduced in the equation III, the regression coefficient (*b*) for the association between network competence and internationalization, as well as the standardized Beta reduce from *b* = 0.29 to *b* = 0.13 and Beta = 0.30 to Beta = 0.03 respectively (Equation II and Equation III (ii)). This finding supports the works of Pla-Barber and Escriba-Esteve (2006) and Yu-Ching Chiao (2013) who found that the network competence of a firm played a big role in internationalization of a firm by increasing the intensity of the network relationships of that firm.

Hierarchical Regression Model

The results of the hierarchical regression are indicated in table V. The confounding influence of the classification variables was controlled for by entering them in the first model of the hierarchical regression. These included firm size, age of the firm and number of foreign employees (Schwens and Kabst, 2010). The rest of the independent variables were then entered in order of importance (field, 2006). Table V revealed that none of the confounds were statistically significant (beta coefficients of 0.06, -0.00, -0.01 for firm size, age and number

Table 5. Hierarchical regression with internationalization as the dependent variable

Variable	Model 1		Model 2		Model 3		Collinearly stat.	
	B	SE	B	SE	B	SE	Tol.	VIF
Constant	1.74	0.27	1.35	0.27	1.22	0.28	Na	Na
Firm size	0.06	0.02	0.04	0.01	0.03	0.01	0.63	1.58
Age of firm	-0.00	0.00	-0.00	0.00	-0.00	0.00	0.92	1.09
No. of foreign employees	-0.01	0.01	-0.01	0.01	-0.00	0.01	0.68	1.47
Net. Reln. Int.			0.50**	0.06	0.34**	0.06	0.58	1.73
Net. Comp.							0.72	1.39
R	0.13		0.67		0.73			
R^2	0.02		0.45		0.54			
Adjusted R^2	0.02		0.45		0.54			
R^2 change	0.02		0.44		0.08			
F-statistic change	0.21		48.01**		35.52**			
Sig. F – change	.65		.00		.00			
N = 207 ; ***p < 0.001 ; **p < 0.01 ; *p < 0.05								

of foreign employees respectively, $\Delta F = 0.21$). These variables combined in model 1 explained only about 2% of the variance in a firm's internationalization. This finding supports the International Trade Centre (ITC) models which argue that service firms can go international irrespective of the size and experience, after all services are technology driven, where size, experience, territory do not matter (Freeman and Sandwell, 2008). Hohenthal (2007) indeed indicates some confusion in international business studies on the relationship between experience and internationalization, while Schwens (2010) cautioned against a universal interpretation of the finding that firm size affects internationalization.

Network relationship intensity was entered in the equation in Model 2 which explained an additional 44% of the variance in service firm internationalization ($\Delta F = 48.01$, $p < 0.01$) and produced a statistically significant beta coefficient (B = 0.50, p < 0.01). This finding supports H3 and offers preliminary support for H4. Model 3 entered network competence in the equation, which explained an additional 8% of the variance in service firm internationalization ($\Delta F = 35.52$, $p < 0.01$) and produced statistically significant results (B = 0.34, p < 0.01), a further support for H1. The overall explanatory power of the model was 54% hence network competence and network relationship intensity explained 54% of the variance in internationalization of service firms. This finding supports Schwens' (2010) meta-analytic results which indicated a significant positive effect size of the influence of networks on the internationalization. Freeman (2012) study on born global firms' use of networks and alliances also suggested that networks enhance a firm's internationalization activities while Yu-Ching Chiao (2013) on the netwok effect in multinationals in Taiwanese subsidiaries research revelead similar results.

Conclusions and Implications

The state of internationalization of service firms in Uganda was still low. The levels of network competences and network relationship intensity were also found to be low. The various network competences proposed by earlier scholars were empirically verified in the Ugandan setting. The cross-relational and relation specific competences strongly and positively correlated with internationalization, while the specialist and social competences did not correlate with internationalization. The composite network competence variable positively correlated with network relationship intensity and internationalization. Network relationship intensity had a positive significant correlation with internationalization. The relationship between network

competence and internationalization was mediated by network relationship intensity, and this mediation was partial. The classification variable of firm size, age and number of foreign employees did not predict internationalization of a service firm. Network competence and network relationship intensity significantly predicted internationalization, with a total prediction potential of 54%.

Theoretical implications

This study was based on theoretical and conceptual foundations which partly solve the dilemma of developing empirical research based on strong theoretical underpinnings. The results of the Structural Equation Modeling methods confirmed the model as consistent, reliable and valid Through empirical investigation in a least developed country setting, the study shows that the "netcomp" instrument originally developed in Germany and tested in European and Asian settings is a not only reliable instrument for the measurement of network competence in a least developed country setting, but also possesses the convergent validity in measuring network competence in the same setting. Ritter et al. (2002) called for the validation and examination of the scale in other cultural contexts, and extensions and generalizations of the scale for different industry and network contexts, including such areas as internationalization of a firm. They also note that all the studies conducted so far relied on one respondent from each organization to assess a firm, and called for multiple respondents from each firm for future studies to give a better picture from inside a firm. This study has gone a long way in achieving this.

Managerial implications

The study highlights the importance of the service firm's ability to initiate, handle, develop and manage network relationships with the various network partners, as well as intensifying the network relationships with the various network partners. Ugandan service firms should put network competences as well as intensifying their network relationships with their network partners on top of their priority agenda list if they are to benefit from the fruits of internationalization. Since service firms in third world economies suffer from poverty of resources, they can succeed in their internationalization efforts by focusing on less costly mechanism such as building and maintaining network relationships with the various partners in the international markets. Networks will lower the firms' risks and liability of

newness in the foreign markets. The study has got implications for management and employee training, development and selection. After identifying presence or absence of the network competences among the staff, it may be possible to train managers and employees in some of these attributes. Role plays, skill development exercises, films as well as case studies focusing on these attributes may be useful in the training.

Limitations of the study

This study undertook a cross-sectional approach to data collection, which prohibits studying the sequential aspects of internationalization. Extending the study to post-entry phase of internationalization of the service firm would help enrich the study, and would bring out aspects to do with post-internationalization learning for service firms. Finally, the study uses only number of employees to estimate the size of a firm. A comprehensive measure of firm size ought to have included other dimensions like number of sales, revenues and asset base of a firm (Schwens, 2008; Schwens and Kabst, 2010; Jantunen et al., 2005; Reuber and Fischer, 1997).

Areas for Future Research

The network elements of orientation within the networks, positioning in the network, effective communication with the network actors as well as timing of foreign market participation have been argued by a number of scholars as being critical in foreign market entry of service firms (Freeman and Sandwell, 2008; Salmi, 2000). The cross-industry interviews with service firm managers in this study also tend to suggest the same. An attempt should be made to examine these elements in services internationalization, and examine in detail how foreign market entry varies across different service sectors. Future studies should attempt to look at the antecedents of network competence and subsequent international performance of the service firms once they are in the foreign markets, what drives the performance in these markets and how the firms benefit out of the networks that are created. Ritter and Gemuenden (2010) have pointed to some of the antecedents of network competence to include access to resources, network orientation of human resource management, integration of communication structure and openness of corporate culture. Future studies should also attempt to compare those firms that internationalize and those that do not, for instance looking at whether the firms that do not internationalize lack the principal determinants of internationalization, and if they possess the determinants then what drives their decision not to internationalize.

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