

The Impact of Relationship Quality on Business Model Innovation of the Start-up Firms in Ba Ria – Vung Tau Province

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Abstract:- This study examines the relationship between relationship quality and components of business model innovation of start-up firms in Ba Ria - Vung Tau province. Relationship quality is examined between start-up firms and local start-up support organizations. This study uses quantity research methods by applying Structure Equation Modeling (SEM) with a sample of 425 start-up owners. The findings show that relationship quality positively influences components of business model innovation. In conclusion, the study proposes managerial implications for start-up firms and suggests directions for further researches.

Keywords:- Relationship quality; business model innovation.

I. INTRODUCTION

In Vietnam, the percentage of successful start-ups under 3,5 years was 12,7% (GEM, 2016). Failure causes of start-up firms (SF) is not yet to build relationship quality (RQ) and business model innovation (BMI) (Nguyễn Quang Thu et al, 2017). Osobajo & Moore (2017) had combined researches on RQ (1987 – 2015) showing that there was not a research discovering the relationship between firms and local community organizations. Therefore, our study group selected the topic “RQ and BMI for SF” for researching. SF will be consulted to in novate the components of business model to create competitive advantages and improve operating performance (Aspara et al, 2010).

This study was taken place in Bà Rịa – Vũng Tàu province, period 2014 – 2017, number of SF is 4470, but dissolutions and license revocations have an increasing trend (Department of Planning and Investment, 2017). The target of this study is to identify components of RQ, BMI and to test the relationship between them. The study will help SF focus on building RQ with local start-up support organizations to conduct BMI that reduces start-up business failure rate.

II. THEORETICAL FRAMEWORK

A. Relationship quality

• Communication quality in start-up business

For SF to build qualified relationship with local start-up support organizations, the minimal condition is having start-up projects with possibility, creative innovation and growth potential. Start-up support organizations give trust and assist in start-up resources over functions or commitments. SF have to comply with the initially

supported commitments and maintain the relationship through relationship investment activities (Nyaga & Whipple, 2011), frequent communication (Lages et al, 2005). Since, the two sides will be satisfied with the relationship and foster cooperation. Hence, RQ between SF and start-up support organizations is a multi-directional concept, based on perception of each side when gaining trust, satisfaction, commitment level, and relationship investment and communication quality of the relationship for the start-up project.

B. Business model innovation

BMI is to restructure activities in the actual business model to create innovations for products/services. Firms to develop consistently need to carry out BMI (Carayannis et al, 2014). Clauss (2016) has constructed the measuring components for BMI, including:

- New capabilities: firms need new capabilities to carry out BMI to catch the rising opportunity from the external environment (Teece et al, 1997). New capabilities are developed through trainings, education, discovering new ideas and experienced lessons (Achtenhagen et al, 2013).
- New technology: science & technology resources are essential to carry out BMI. Wei et al (2014) demonstrated that technology development is suitable to a successful business model. New technology help firms to restructure the business model.
- New partnerships: partnering with suppliers, customers or competitors is the external resources for firms to carry out CMI. The strategic partners are the important resources because BMI is so complicated that requires help from them.
- New products/services: firms need to address the customers demand the best way. Products/services innovation through researching activities and development or usages of new technology (Teece, 2010).
- New markets: are the client groups/market segments that firms will provide products/services in the future (Afuah, 2014). BMI is to reidentify the current markets/ to enter new markets.
- New distribution channels: are distributing values to clients (Baden-Fuller & Mangematin, 2013). Distribution is taken place by different ways, especially for intangible goods or services (Osterwalder et al, 2005).
- New customers relationship: when products can be replaced/ markets have been mature, firms need to establish relationship with customers to be given updated information regarding to environment and potential

market demands, leading to carrying out BMI (Chesbrough, 2006).

- New revenue models: customers are those who pay for firms when values delivered (Afuah, 2014). The questions related to the new revenue model are at which stage revenue is generated and for how long it may last, who are firms' customers? (Baden-Fullen & Haeffliger, 2013).
- New costs structure: are the direct and indirect in relation to operating performance of firms (Casadesus-Masanell & Ricart, 2010).

C. Relationship between RQ and BMI

SF to innovate capabilities need to build RQ with start-up support organizations to reinforce managerial and administrative abilities, to seize the external opportunities. Hypothesis H₁ is proposed:

H₁: RQ influences positively to capabilities innovation of SF;

Technological innovation need interaction between firms. Therefore, firms need to build relationships and partnership networks to create, develop technology and new products (Holmen et al, 2005). Start-up support organizations help SF to innovate and possess technology through researching activities, training and technology transfer. SF also get advanced support in building, completing and developing new products/ services. Hypotheses H₂, H₃ are stated:

H₂: RQ influences positively to technological innovation of SF;

H₃: RQ influences positively to offerings innovation of SF;

SF will be supportedly introduced to business partners, international partners to establish partnership networks and take advantages of the given opportunities. Besides, partner selection also depends on trust between both sides, when trust in both sides is high, they will trust each other in higher level and reduce opportunism (Bierly & Gallagher, 2007). Hypothesis H₄ is proposed:

H₄: RQ influences positively to partnerships innovation of SF;

Firms identify and segment the potential market into smaller parts to easily manage for profit growth (John, 1999). Start-up support organizations found distribution channels by means of public-private partnerships, to help SF expand domestic consumption market. SF is guided to partners, investors to approach international market. Hypothesis H₅ is proposed:

H₅: RQ influences positively to markets innovation of SF;

Start-up support organizations will help SF adapt new technologies or change the existing distribution methods of distribution channels (Kongmanila & Takahashi, 2009). Hypothesis H₆ is proposed:

H₆: RQ influence positively to distribution channels innovation of SF;

Customer relationship management will help start-up innovate customer relationship to capture market information and customers demand (Reinartz et al, 2004).

SF will be supported to expand the consumption market, connect to partnership networks to seek out consumers and make profits for SF. Hypotheses H₇, H₈ are stated:

H₇: RQ influences positively to customer relationships innovation of SF;

H₈: RQ influences positively to revenue models innovation of SF;

Costs innovation depends on the costs structure in the actual business model for ways to reduce costs efficiently (Williamson, 2010). In the early years, SF is given supports with tax, accounting, privilege tax and manufacturing plant. SF with the given supports mentioned above will be able to save operating costs to the minimum. Hypothesis H₉ is proposed:

H₉: RQ influences positively to costs structure innovation of SF;

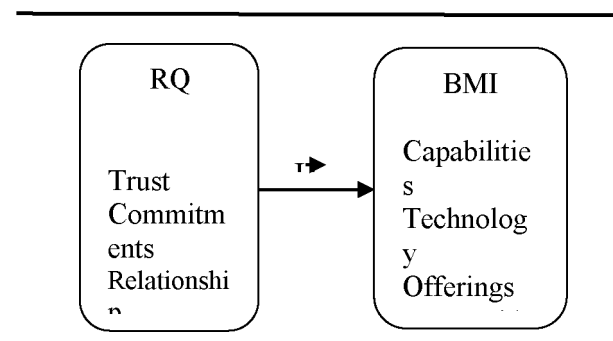


Fig 1:- Suggested research model

III. RESEARCH DATA

This study uses direct interview technique and questionnaires sending via email with the 5-level Likert scale (from 1: completely disagree to 5: completely agree).

Constructs: the constructs used in the research model is developed originally upon the overseas constructs. The research model has 10 concepts with 53 observational variables as displayed in Table 1. Construct RQ has a secondary structure whose 6 components; structure BMI is unidirectional and contains 9 components.

IV. RESULTS AND DISCUSSIONS

A. Research results

The result of the CFA analysis with the saturated model: $\chi^2_{[1269]} = 1482,539$ (p = 0,000). If the degree of freedom is adjusted: CMIN/df = 1,168 < 2, satisfactory compatibility. Other indicators: GFI = 0,886; TLI = 0,980; CFI = 0,981; RMSEA = 0,020 < 0,80 were satisfied. CFA coefficients of all the observational variables were greater than 0,5 that affirmed unidirectionality and convergent values of the constructs used in the research model. Thus, the saturated model achieves the level of compatibility with market data.

SEM results (Figure 2), theoretical model has $\chi^2_{[1206]} = 1554,360$; $p = 0,000$; $CMIN/df = 1,289 < 2$; $GFI = 0,871$; $TLI = 0,966$; $CFI = 0,967$; $RMSEA = 0,026$. Heywood phenomenon did not appear in the estimation of SEM so the model is compatible with market data.

Results of key parameters are presented in Table 1. Accordingly, RQ has the most positive influence on costs structure innovation (H_9 : $\beta = 0,699$; $p = 0,000$); following, the same positive influences on distribution channels innovation (H_6 : $\beta = 0,638$; $p = 0,000$) and technological innovation (H_2 : $\beta = 0,634$; $p = 0,000$). Next, RQ has positive influences, respectively, on revenue models innovation (H_8 : $\beta = 0,600$; $p = 0,000$), partnerships innovation (H_4 : $\beta = 0,565$; $p = 0,000$) and capabilities innovation (H_1 : $\beta = 0,564$; $p = 0,000$). Next, RQ has positive influence on offerings innovation (H_3 : $\beta = 0,547$; $p = 0,000$); markets innovation (H_5 : $\beta = 0,440$; $p = 0,000$). Finally, RQ has the least positive influence on customers relationship innovation (H_3 : $\beta = 0,430$; $p = 0,000$).

Relationship		Estimate			P-value
		β	se	t	
CAP	<---	RQ 0,564	0,040	10,859	0,000
TEC	<---	RQ 0,634	0,038	9,734	0,000
OFF	<---	RQ 0,547	0,041	11,129	0,000
PART	<---	RQ 0,565	0,040	10,843	0,000
MARK	<---	RQ 0,440	0,044	12,826	0,000
CHA	<---	RQ 0,638	0,037	9,669	0,000
REL	<---	RQ 0,430	0,044	12,985	0,000
REV	<---	RQ 0,600	0,039	10,283	0,000
COST	<---	RQ 0,699	0,035	8,657	0,000

Table 1:- Regression coefficients

Notes: β : standardized coefficients; S.E: standard error

V. CONCLUSIONS AND MANAGERIAL IMPLICATIONS

A. Conclusions

This study tested the relationship between RQ and components of BMI for SF. The research results indicate that RQ has positive influence on the nine components of BMI so that 9 research hypotheses are accepted.

B. Managerial implications

The components of BMI influence positively to start-up performance (Nguyễn Quang Thu et al, 2018). SF need to build RQ with local start-up support organizations to approach the supporting resources and carry out BMI to improve start-up performance. Some specific managerial implications.

Implication 1: SF build RQ with local start-up support organizations

To have a qualified relationship with start-up support organization, SF need to improve the components below:

- Trust: trust in the information given by the start-up support organizations. Start-up support organizations

support start-up resources over commitments between both sides, consider business operating performance and examine benefits in both sides to ensure the most possible benefit for SF.

- Commitments: comply commitments with start-up support organizations for the cooperating relationship of both sides to be remained persistently and developed consistently over time. SF need to dedicate to building and investment for business development.
 - Communication quality: constantly interact in strategy deployment process, strategic objectives have to be informed clearly to each side. Members of two sides regularly communicate when implementing strategies.
 - Relationship investment: spend investment in relationship in terms of human resources, capability, technology or supporting system with start-up support organizations.
 - Satisfaction: coordinate activities with start-up support organizations, interact between managers to make decisions together. Besides, the two sides need to share information, manage linking activities in an honest manner, willingness to cooperate to deliver benefits for both sides.
 - Characteristics of start-up firms: foster activities in fields with creative innovation: applied technology, exploitation of intellectual property,... to enhance competitive advantages and, to have ability for fast growth.
- *Implication 2: SF need to conduct BMI adequately, specifically for innovation in components.*
- Costs structure: examine the pricing strategy, proactively seek opportunities to save production costs, regularly evaluating and adjusting production costs over the market.
 - Distribution channels: use new distribution channels for products/services, need to change distribution channels to improve quality of the channels.
 - Technology: update technological resources, upgrade technical equipments against to the competitors and exert potential technology to spread out the products/services portfolio. Especially in the industrial revolution 4.0, SF proactively approach in ways differently from the previous, invest in technology over the international standard.
 - Revenue models: develop new revenue opportunities, provide more embedded services to gain long-term profitability, complement/replace one-time transaction revenue by periodically long-term revenue model.
 - Partnerships: search for new partners to cooperate, seize the given opportunities, evaluate potential benefits when using external resources and, develop the business model.
 - Capabilities: enable employers to be trained to gain knowledge, updating capability, and develop new capabilities to get on well with the market change.
 - Offerings: consider the new customers demand which is unavailable, innovate offerings to address the customers demand.

- Markets: seize the rising opportunities in the new/developing markets, always consider the new market segments, unmet markets, and search for customer segments and new markets for products/services.
- Customers relationship: enhance customer retention by additional services, concentrate on the creative innovation activity to boost customer retention.

C. Limitations and recommendations for further research

This study investigated SF in a variety of different fields so that was unable to observe the characteristics and different demands of each field. To have a better test result, it needs to research on one particular field to observe the role of RQ in conducting BMI.

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