

An Examination of Value Creation and Value Capture in Open Source Business Models

PhD Research-in-Progress

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Introduction

- OSS seen as a popular example of open innovation
- Software can be called ‘open source’ if it and its source code can be freely modified and redistributed
- Use of OSS as part of an open innovation strategy is a recent phenomenon
- Shifting of focus from ownership to the concept of openness requires a reconsideration of the processes that underlie value creation and capture

Open Innovation in Context

- Open innovation is “a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market” (Chesbrough, 2003)
- However, the term is up for debate!
- Resonates with other related topics, e.g. collective invention (Allen 1983), user innovation (von Hippel, 1988, 2003), creation networks, community-based innovation

OSS as part of an Open Innovation Strategy

- West (2007) and West and Gallagher (2006) have investigated OSS as part of OI strategy
- Key question - how does a firm create value for the customer while capturing some of value for itself?
- The above studies have focused primarily on US based IT firms
- Comprehension of issues surrounding OS business models is lacking, i.e. value component

Theoretical Framework

Value Creation

- Porter's value chain considered the accepted language for analysing value creation
- However, this type of framework is more suited to manufacturing firms
- Transaction Cost Economics (TCE) focuses on cost minimisation
- May divert attention from other important sources of value, e.g. innovation, interdependence between parties

Value Capture

- Resource-based view (RBV) of the firm is concerned with questions of value appropriation
- This view conceptualises the enterprise as a bundle of resources and capabilities
- However, OSS has a lower formal appropriability than proprietary software
- Proponents of RBV emphasise that competitive advantage is based on resources/capabilities that are owned and controlled within the boundaries of a single firm

Value Network

- Locus of innovation will be found in networks rather than in individual firms
- The value network around a given business shapes the roles that suppliers, customers etc. play in influencing the value captured
- In the context of OSS, it is relations with users and the OSS community that is important for the firm

Conceptual Model

- Business model as a conceptual framework for studying value creation and value capture
- Uses both external and internal ideas to create value, while defining internal mechanisms to capture some of the value
- This research uses Osterwalder and Pigneur's business model ontology
- Business model is 'the missing link between strategy and business processes' (Osterwalder et al., 2005)

| Pillar | Business Model Building Block | Description |
|---------------------------|--------------------------------------|--|
| Product | Value Proposition | Gives an overall view of a company's bundle of services and products |
| Customer Interface | Target Customer | Describes the segment of customers the company wants to offer value to |
| | Distribution Channel | Describes the various means of the company to get in touch with its customers |
| | Relationship | Explains the kind of links a company establishes between itself and its different customer segments |
| Infrastructure Management | Value Configuration | Describes the arrangement of activities and resources |
| | Core Competency | Outlines the competencies necessary to execute the company's infrastructure business model |
| | Partner Network | Portrays the network of cooperative agreements with other companies necessary to efficiently offer and commercialise value |
| Financial Aspects | Cost Structure | Sums up the monetary consequences of the means employed in the business model |
| | Revenue Model | Describes the way a company makes money through a variety of revenue flows |

Table 1.0 Nine Business Model Building Blocks (Source: Osterwalder et al., 2005)

Research Methodology

- Research Questions:
 - How does a firm's business model enable them to create value around OSS?
 - How does a firm's business model enable them to capture value with OSS?
 - What role does a value network play in creating and capturing value
- Post-positivist case study approach
- Post-positivism based on notion of critical realism
- The post-positivist epistemology regards the attainment of knowledge as a process that is more than mere assumption

- Study is considered exploratory in nature and a case study research methodology considered most appropriate
- Approx 5 case studies to be carried out in European-based firms operating in various industry contexts
- Data collection will be carried out using semi-structured interviews
- Content analysis will be undertaken using coding techniques, i.e. open coding, axial coding and selective coding

Conclusion

- The research will address the lack of in-depth research on business models
- It will compliment previous studies on OSS business models by providing new insights on value creation and value capture processes
- Will highlight the importance of collaborating as part of a value network
- Will build on current research in terms of the relationship between OSS and open innovation