Value capture dynamics – opportunity-driven changes

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Introduction

A firm’s performance is shaped by both the creation of value and its appropriation. New value is created through novel combinations of resources. However, the necessary conditions for any purposive deployment of such combinations involves not only the existence of a particular opportunity and motivation, but equally the expectation that some value from that deployment will be captured. Thus, the issue of value appropriation can be sited at the forefront of the decision-making process on resource deployment. Given that appropriation is about securing resources that allow investment in future value creation, there is a growing understanding in recent management literature for recognizing the processual nature of value appropriation. Yet, this process brings with it the difficult task of defining its dynamics. Appropriability conditions vary, not only across industries and geographical regions but also timeframes. Hence, the effectiveness of the appropriation

1 Research project “Dynamics and determinants of the process of appropriating value from projects implemented in the inter-organizational networks” financed by national Science Centre of Poland (NCN) on the basis of the decision 2013/11/D/HS4/03965.
instruments used may vary at different stages of even a single business project. It implies potential discontinuities and tensions in the value appropriation process, as each appropriation mechanism conveys the possibility of potential inefficiency. Thus, shifts in the circumstances in which a given firm operates may trigger path-breaking changes, not only in the area of value creation activities but also across value capture practices. Assuming that firms do pursue opportunities where value capture is uncertain, extends the discussion from a merely exploitative to an explorative perspective. Opportunity driven value capture can have many entrepreneurial features, as it may involve innovation, alertness as well as information-based advantages. Hence, the aim of this study is to enhance the understanding of the dynamics of value appropriation by identifying those decision-making practices and strategic behaviours that are entrepreneurial in nature. The conceptual discussion is supported by rich empirical data to bring a more applied dimension to the important issue of opportunity driven value appropriation.

Theoretical background

Business practice evidences no general rule for the symmetry between value creation and value capture, as firms can appropriate equal, less or more value than they have actually created. Although these potential discrepancies can be observed at the level of a single transaction (monetary exchange), they also develop across organizational activities performed over a longer time span, since both costs and benefits vary in their timing and usually cannot be associated directly with a single exchange at a particular point in time. Moreover, the spectrum of value claimants is much broader than just two sides of a transaction (i.e. producer and customer), since all parties engaged in the value creation process have a stake in the outcome of their collective efforts.

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8 Ibidem.
11 M. Najda-Janoszka, Dynamic capability...
through deployment of owned/controlled resources can be regarded as legitimate claimants of the created value. Given that the decision upon resource deployment is determined by the reasonable expectation of a return on investment value distribution also involves suppliers, employees and complementors, in terms of the benefits generated beyond their opportunity costs. Stickiness and time dependency of resources (accumulation and deployment) suggest time-compression diseconomies when it comes to extracting value from those resources, meaning value is not being captured instantaneously – as it takes time to appropriate the extracted value streams. The parties engaged in value creation undertake a wide array of activities over time and space, aimed at appropriating as much of the value created attributable to the resources they control. Thus, in the recent management literature there is a growing understanding for defining value capture as a process which can follow, precede or occur simultaneously with value creation (e.g. patent sharks, capture by value maximization). Hence, value appropriation is not a simple extrapolation of activities performed within the value creation process – the nature of performed activities can be characterized by a distinct dynamic and may require a completely different kind of knowledge and capabilities. Authors argue that the dynamics of value capture is expressed in both types of activities, those focused on developing and implementing specific mechanisms for value extraction and retention, and those aimed at reconfiguration of previously deployed lines of action. External and internal contingencies may both strengthen or weaken the efficiency of implemented modes

14 P.G. Klein et al., *Who is in charge?...*
20 Ibidem; M. Najda-Janoszka, *Dynamic capability...*
for value capture\textsuperscript{21}. Development, implementation and reconfiguration of value capture mechanisms may occur differently depending on the type of trigger and spectrum of the engaged external and internal stakeholders\textsuperscript{22}. Introduced changes can be of an incremental nature, leading to extrapolation of current procedures (e.g. expanding patent portfolio), or can be disruptive or innovative, rendering deployed lines of actions obsolete (e.g. radical changes in the area of cost management)\textsuperscript{23}. Incremental as well as innovative reconfigurations can be guided by defensive (protection of existing value streams) or offensive (extension of existing value streams) logic. In both cases alertness and information-based advantages play the central role\textsuperscript{24}. Hence, a managerial willingness to pursue uncertain opportunities for value appropriation can be linked with the entrepreneurial orientation of a firm (EO)\textsuperscript{25}, since entrepreneurial firms engage in activities that are innovative, risk taking and proactive\textsuperscript{26}. However, although acting entrepreneurially reflects the pursuit of both value creation and capture, the scholarly focus tends to concentrate on the former one, leaving appropriation as an outcome not considered an integral part of the entrepreneurial process. Moreover, pursuing an opportunity for value capture is generally mentioned in the context of unproductive venture activity, seeking undue value\textsuperscript{27}. Nevertheless, recent research has developed the argument that entrepreneurial orientation as a resource consuming posture can be understood as “the strategic mechanism through which firms capture value in new and uncertain opportunities”\textsuperscript{28}. Hence, while it might be that a firm seizes an attractive opportunity for appropriating value without contributing to its generation, entrepreneurial behaviour can also be observed when a firm

\textsuperscript{21} T. Fischer, Managing Value Capture…; M. Najda-Janoszka, Dynamic capability…; D. Leonard-Barton, Core capabilities…


\textsuperscript{24} D. Di Gregorio, An integrative, multi-level model…


\textsuperscript{28} Y. Eshima, B.S. Anderson, Firm growth…, p. 772.
strives to protect and strengthen created/co-created value streams\textsuperscript{29}. The entrepreneurial response may involve various, creative rearrangements of used appropriation mechanisms as well as the introduction of new resources and capabilities to enhance the capture of created value.

**Methodology**

The review of the extant literature suggests that the dynamic nature of the value appropriation process remains, to a large extent, underexplored. There is a paucity of studies exploring the reconfiguration of resources and the activity patterns involved in value appropriation. Given that this research investigates links not previously addressed in the literature\textsuperscript{30} and the explored issues are highly contextualized\textsuperscript{31}, the study followed a qualitative approach using a field-based case study method. In order to provide a fine-grained, in-depth analysis, while still moving beyond idiosyncrasy, the research was governed by a longitudinal, multiple case design research strategy.

To ensure the observation of a repeatable performance, the selection criteria focused on identifying firms operating in a highly dynamic context that generates multiple triggers for changes in the action patterns of an organisation (intensive use of knowledge and technology, involvement in cross-organizational value creation processes) and exhibiting a substantial track record (minimum 5 years). From the initial sample of 11 firms six were excluded because of incomplete suitability with the selection criteria or unwillingness to share detailed information. The final case set consisted of 5 firms. The names of the investigated firms were not disclosed due to the high sensitivity of the collected data.

To ensure the richness and credibility of the gathered information, yet reduce any systematic bias, data were collected from three main sources: open-ended interviews, archival firms’ internal documentation and direct observations. The selection of firms for the main study involved 11 short (30–45 min) preliminary interviews with each candidate. After defining a set of 5 companies, two waves (2013, 2014–2015) of a total of 24 in-depth, semi-structured interviews (2–3 hours) were conducted in person. The interviewees represented three distinct groupings – top managers and project managers of selected firms, as well as project managers of cooperating partners. In order to minimise the risk of retrospective bias, the research involved direct observations and examination of firms’ internal documents.

\textsuperscript{29} Ibidem; D. Di Gregorio, *An integrative, multi-level model...*

\textsuperscript{30} C.G. Gilbert, *Unbundling the Structure of Inertia...*

13 direct observations performed over two years (2013–2015) comprised a passive participation in project planning and evaluation meetings, visiting on-site investments, observing developed product maintenance and servicing. Document analysis covered a total of 71 files, such as financial statements and project documentation. Moreover, for additional cross-examination of the gathered data the research included information retrieved from public documents, i.e. press releases, industry statistics and reports.

**Results**

The extracted data were grouped into time-sequenced arrays to outline changes in value appropriation (Table 1). The observed action patterns were coded according to the exhibited dominant logic as either defensive or offensive. When rationale was primarily protection of existing value streams, the approach was coded as defensive, e.g. firm C “a lot of pressure was put on the sales force to protect the main market […] we had to deal not only with new distributors, some of our suppliers bypassed our services”. In contrast, if the arguments given clearly underlined the extension of developed value streams, the approach was described as offensive, e.g. firm E “developed patent evaluation service enables optimization of licensing revenues”. Although an offensive approach was indicated most often, the observed defensive actions also exhibited entrepreneurial features – firms B, C, D. Triggers for change in the value capture process were identified owing to the information provided by managers during interviews. The timeframe of those triggers was verified with the use of firms’ internal documentation as well as public reports. The introduced changes in value appropriation concerned the quantity, diversity, and combination of formal and informal isolating mechanisms, as well as diverse procedures aimed at cost reduction, or increased value for customers.

Searching for evidence of opportunity driven value appropriation followed Anderson et al. understanding of entrepreneurial orientation as comprising behavioural and attitudinal components. Managerial attitude towards risk was identified as either a high or low proclivity to take actions when outcomes were uncertain. To be designated at a high level the gathered data had to indicate a willingness to commit substantial resources to risky, wide-ranging projects, e.g. firm A – “the idea was there, costly but it was a good idea”, firm D – “the core idea for the firm was technology development, despite the fact that it was extremely challenging for a small firm to secure its highly innovative solutions against highly interested competitors”. Reluctance to take bold actions and instead exhibit a “wait and see”

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position was categorized as low proclivity toward risk, e.g. firm A – “the crisis does not last forever, we just need to survive this difficult period”. The evidence indicated that the managerial responses exhibited toward risk was contingent upon the context.

The behavioural component of EO was assessed depending upon the degree of innovativeness proactiveness and based on the dichotomy of features presented (0, 1). The active introduction of improvements or completely new modes for value capture (e.g. complexity of offering, lead time advantage, access to complementary resources), undertaking forward looking actions aimed at pre-empting other players, was considered innovation proactivity, e.g. firm B – “we introduced a number of purposeful actions aiming at creating a coherent system of security and a culture of discretion”. The observed incremental changes that followed the actions undertaken by other market players were interpreted as conservative and reactive behaviour e.g. firm A – “we did not expect the situation to change so fast […] the capital shrank quickly and we had no choice but to cut the prices […] the ultimate goal for now is to maintain a stable level of revenues”. The following table (Table 1) presents the evidence of the decision-making practices and strategic behaviours in the area of value capture that exhibit entrepreneurial features.

**Table 1. Collected evidence of opportunity driven value appropriation**

<table>
<thead>
<tr>
<th>Firm</th>
<th>Occurrence</th>
<th>Dominant approach to value capture</th>
<th>Trigger for change</th>
<th>Area of introduced change</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2004–2005</td>
<td>Offensive</td>
<td>New business launch</td>
<td>• Cost optimization</td>
<td>“[…] getting income was not easy. We even engaged people working voluntarily”</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Cash flow harmonization</td>
<td>“A combination of several quite small projects a long with one larger one worked well for the cash flow”</td>
</tr>
<tr>
<td></td>
<td>2008</td>
<td>Offensive</td>
<td>Intensification of competition</td>
<td>• Cost optimization</td>
<td>“[…] an original, comprehensive solution developed in response to the need to increase the efficiency of the firm and its position among the growing number of competitors”</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>EU funds for innovations</td>
<td>• Control of access to complementary resources</td>
<td></td>
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</tbody>
</table>

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<tbody>
<tr>
<td>B</td>
<td>2008–2010</td>
<td>Offensive</td>
<td>New business launch</td>
<td>• Developing a know-how protection system</td>
<td>“Each new project requires an intelligent integration of a comprehensive concept of the DPC with the expert knowledge of professionals of a given industry […] copyright in that case just does not do the job”</td>
</tr>
<tr>
<td></td>
<td>2010–2011</td>
<td>Defensive</td>
<td>Payment backlogs</td>
<td>• Cost optimization • Commencing litigations</td>
<td>“We continued with big projects […] we commence litigation regardless of the size or position of our partner”</td>
</tr>
<tr>
<td></td>
<td>2011–2014</td>
<td>Offensive</td>
<td>Payment backlogs</td>
<td>• Cost optimization • Value streams diversification • Cash flow harmonization</td>
<td>“[…] revenue from hotel services represent a financial buffer […] we turned to smaller projects – big ones are divided and contracted separately”</td>
</tr>
<tr>
<td></td>
<td>2013–2015</td>
<td>Offensive</td>
<td>Market growth</td>
<td>• Value streams diversification • Reconfiguration of the know-how protection system</td>
<td>“[…] we entered completely new ground […] we introduced a number of purposeful actions aiming at creating a coherent system of security and a culture of discretion”</td>
</tr>
<tr>
<td>C</td>
<td>1987–1995</td>
<td>Offensive</td>
<td>Launching and expanding a new venture</td>
<td>• Lead time advantage</td>
<td>“[…] we were pioneers, the firm targeted mainly the banking sector to build a strong, lasting position”</td>
</tr>
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<td>Firm</td>
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<tr>
<td></td>
<td></td>
<td>Offensive</td>
<td>Market growth, intensification of competition</td>
<td>• Supply management – strengthening bargaining position • Backward integration • Value streams diversification • Cash flow harmonization</td>
<td>“[…] we need to be always aware of any mistakes made by our competitors, any equipment failure on their side, because we must be there at once with a better offer”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Defensive</td>
<td>Financial crisis, EU funds for innovations</td>
<td>• Cost optimization • Value streams diversification • Cash flow harmonization</td>
<td>“We sensed quite early the first symptoms of this financial crisis on our markets and we used the time to arrive as fast as possible at comprehensive protective solutions”</td>
</tr>
<tr>
<td></td>
<td>2014–2015</td>
<td>Offensive</td>
<td>Market growth technology advances</td>
<td>• Value streams diversification • Control of access to complementary resources</td>
<td>“[…] we need to go there] were big opportunities for high margins are still hiding [and waiting for us] […] we need a meticulous insight into technology advances for our new solutions that go far beyond electricity consumption management”</td>
</tr>
<tr>
<td></td>
<td>1991–2005</td>
<td>Defensive</td>
<td>Expanding a new venture</td>
<td>• Developing a know-how protection system</td>
<td>“[…] being small we had to be extremely fast to incorporate patented inventions into production”, “our protection system goes far beyond patents”</td>
</tr>
<tr>
<td></td>
<td>2012–2015</td>
<td>Defensive</td>
<td>Regulatory changes Market saturation</td>
<td>• Cost optimization • Supply management (procurement division) • Subcontracting</td>
<td>“[…] for the first time we experienced a drop in profits, it was shocking but mobilizing, the firm developed a procurement division, expanded further R&amp;D in the area of miniaturization”</td>
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Table 1 (continued)

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<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>2010–2012</td>
<td>Offensive</td>
<td>Public infrastructure development</td>
<td>• IP management • Control of access to complementary resources</td>
<td>“[…] our solutions have to be not only highly reliable but compatible with the range of our other products, the developed patent evaluation service enables optimization of licensing revenues”</td>
</tr>
<tr>
<td></td>
<td>2013–2015</td>
<td>Offensive</td>
<td>Technology advances</td>
<td>• IP management • Cost optimization • Control of access to complementary resources</td>
<td>“[…] the support costs from the R&amp;D of our parent company drained our project budgets, we had to opt for our own R&amp;D”, “it is not only about us and competing firms, it is also about us standing up to X (the parent company)”</td>
</tr>
</tbody>
</table>

Source: own elaboration.

**Discussion and conclusions**

The introduction to the article emphasised the scarcity of evidence of discontinuities and variability of the value capture process. Previous research has been overly focused on the moment of transaction\(^\text{34}\) and the individual effectiveness of selected value protection tools\(^\text{35}\). The current study helps to expand the understanding that receiving and retaining value streams involves a wide range of resources and capabilities developed across organizational functions. The data show that firms appropriate value streams through a wide range of mechanisms, engaging various organizational areas, e.g. secrecy by data encryption (firms B, D, E), complexity of produced solution (protection against imitation) (firms A, B), reorganization in pursuit of cost and time delivery optimization (firm D) and patents (firms D, E). Recent management literature suggests that value appropriation secures resources that allow investment in future value creation\(^\text{36}\). According to the material collected, value capturing activities undertaken by the investigated firms not only followed or co-occurred, but also even preceded value

35 T. Fischer, *Managing Value Capture*…
36 S.M. Wagner, A. Eggert, E. Lindemann, *Creating and appropriating value*…
creation\textsuperscript{37}. Not all inventions patented by firm D were directed straight to production – some were used to pre-empt potential competitors\textsuperscript{38} and commercialized later on, when the firm was ready with complementary resources. Similarly, a procurement division to enhance cost management, developed by the same firm, preceded a major product modification related to the materials used, and thus requiring a radically new portfolio of suppliers. In the case of firm E, hiring their own R&D specialists enabled substantial cost cutting in current projects (responding to the expensive R&D backup from the parent company), yet, at the same time, it provided additional support for developing proprietary know-how for future projects. The gathered data also provide evidence for value capturing by value maximization\textsuperscript{39}. Striving to improve its market position while facing a growing number of competitors, firm C rearranged its value streams in a way that strengthened the complementary activity of servicing to the extent that it became the main source of value for the firm.

The information obtained during the interviews enabled us to link the undertaken activities with the initial triggers, the perception of those triggers and the motivation and intention underlying the decision process. The managers mentioned a number of minor events that firms reacted to within existing action patterns of value capturing. The evidenced engagement in an on-going, systematic process of environmental scanning enabled the relatively early detection of the first signs of disruptive changes. Alertness and information-based advantages were of particular importance for the introduced changes in value appropriation\textsuperscript{40}. Furthermore, all introduced reconfigurations concerned the enhancement of capturing value streams that were/will be created or co-created by those firms\textsuperscript{41}. Just a single piece of evidence for an opportunistic appropriation of undue value was found with regard to the behaviour of a strategic partner of firm B (payment withheld).

The investigated firms engaged in opportunity driven reconfiguration of action patterns for value capture and exhibited strong proactive and innovative postures fuelled by a managerial willingness to pursue uncertain, risky initiatives. The obtained results are in line with the arguments that EO can be used not only for the exploration of new opportunities but also to capture value from them\textsuperscript{42}.

\textsuperscript{37} C. Ellegaard, Ch.J. Medlin, J. Geersbro, \textit{Value appropriation in business exchange}…
\textsuperscript{39} W. Czakon, \textit{Sieci w zarządzaniu}…
\textsuperscript{40} D. Di Gregorio, \textit{An integrative, multi-level model}…; M. Najda-Janoszka, J. Gancarczyk, \textit{Addressing the challenges of industrial transition processes}…
\textsuperscript{41} M. Najda-Janoszka, J. Gancarczyk, \textit{Addressing the challenges of industrial transition processes}…
\textsuperscript{42} Y. Eshima, B.S. Anderson, \textit{Firm growth}…
The study has potential limitations due to the relatively small sample. However, the rich data gathered provide valuable exploratory insights into the processual character of value appropriation and a powerful evidence of entrepreneurial features of value capture. Further studies could build on these while investigating the dynamics of the processes of value creation and capture in firms operating in platform ecosystems.

References


Abstract

The study addresses the gap in the research concerning the dynamics of the value capture process. The aim is to enhance the understanding of the dynamics of value appropriation by identifying those decision-making practices and strategic behaviours that are entrepreneurial in nature. The conceptual discussion is supported by the empirical research governed by a multiple case design. The longitudinal study generated valuable insights into the processual character of value appropriation, as well as into its variable, not always linear, occurrence with value creation. The collected data provide rich evidence of opportunity-driven changes in the value capture action lines.

Keywords: entrepreneurial orientation, value capture, value appropriation, opportunity