Organizational capabilities and agility studies

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Organizational capabilities and agility studies

The research questions are:

1. What is ordinal and dynamic organizational capabilities?
2. How to measure dynamic organizational capabilities?
3. What is the value of the dynamic organizational capabilities?
4. How is it possible to integrate agile software development methods to organizational processes and activities and to achieve agility?
5. How is reasonable to measure agility in organizational level, group level, and team level?
6. Is the dynamic organizational capabilities a better concept to use in the organizational studies.
7. Is the agility similar concept as is the flexibility?
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Schumpeter’s (1934, p. 66) concept of new combination:
1. The introduction of a new good
2. The introduction of new method of production
3. The opening of a new market
4. The conquest of a new source of supply or raw materials of half-manufactured goods
5. The carrying out of the new organization of any industry.

Drucker (1984, p. 35-36) the source of innovation:
1. The unexpected success, failure
2. The incongruity between reality as it is actually and reality as it is assumed
3. Innovation based on process need
4. Changes in industry structure or market structure
5. Demographics
6. Changes in perception, mood, and meaning
7. New knowledge, both scientific and non-scientific
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The concepts of organizational capabilities:

1. Ordinal organizational capabilities
2. Dynamic organizational capabilities
3. Organizational agility

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Gill and Delahaye (2004) suggested the model of organizational capability based on three domains:

- Strategic intent (RBTF)
  - Explicit direction, qualities of workforce, inform organizational processes, inform future direction

- Organizational structure
  - Meaningful job roles, guided performance management

- Individual knowledge
  - Clearly defined core knowledge, skills, and abilities
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Source: Sambamurthy et al. (2003, p. 254)
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<table>
<thead>
<tr>
<th>Dominant learning direction</th>
<th>Radicalized dynamization approach</th>
<th>Integrated dynamization approach</th>
<th>Routinized dynamization approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiential (ahistorical) learning</td>
<td>Historical learning within the frame of capabilities</td>
<td>Historical learning within the frame of innovation routines</td>
<td></td>
</tr>
<tr>
<td>Regimes of ad-hoc problem-solving processes</td>
<td>Processes internal to capability</td>
<td>Processes external to capability</td>
<td></td>
</tr>
<tr>
<td>Low: Avoid routines as far as possible</td>
<td>Medium: Build routines and paths</td>
<td>High: Build multiple level of routines</td>
<td></td>
</tr>
<tr>
<td>Paradigm change: Capability as strategic resource obsolete</td>
<td>Paradigm modification: Capability as dynamic strategic resource</td>
<td>Paradigm variation: Capability as strategic resource Meta-capabilities as medium for dynamization</td>
<td></td>
</tr>
</tbody>
</table>

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Schilke O., S. Hu, and C.E. Helfat (2018) conducted systematic literature review, in which they explored both theoretical and empirical studies concerning dynamic organizational capabilities from 2008 to 2016).

Suggestions for future researches are:
1) **Mixed-method studies**
2) **Archival data and empirical proxy variables**
3) **Meta-analyses**
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Source: Galliers R.D. (2007), and Mårtensson (2007)
Oosterhout et al. (2007) studied business agility in Netherland.

Research question:

*What are the contributing factors that require business agility, and what IT strategies can be implemented for enhancing business agility?*

Results: Business agility is the ability to sense highly uncertain external and internal changes and respond reactively or proactively, based on innovation of the internal operational processes, involving the customer in exploration and exploitation while leveraging the capabilities of partners in the business network.
Conboy and Fitzgerald (2007) proposed a framework for agile system development. The idea is originally from the agile alliance’s manifesto. Agile methods were suggested to use for software development.

e.g. eXtreme programming (XP), Scrum, Lean programming, rational unified process.

The definition of agile: “it is the continual readiness of an entity to rapidly or inherently create change, proactively or reactively embrace change, and learn from change, through customer value-adding components and relationships with its environment.”
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Leffingwell et al. (2016) in Scaled Agile Framework for enterprise suggested to think agile software development work in large-organizations applying lean-agile mindset as it is illustrated in the SAFe house of lean.
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## Organizational capabilities and agility studies

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Expected Result</th>
<th>Metric Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee engagement</td>
<td>Improved employee satisfaction; lower turnover</td>
<td>Employee survey; HR statistics</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>Improved Net Promoter Score</td>
<td>Net Promoter Score survey</td>
</tr>
<tr>
<td>Productivity</td>
<td>Reduced average feature cycle time</td>
<td>Feature cycle time</td>
</tr>
<tr>
<td>Agility</td>
<td>Continuous improvement in team and program measures</td>
<td>Team, Program, and Portfolio self-assessments; Release Predictability Measure</td>
</tr>
<tr>
<td>Time to market</td>
<td>More frequent releases</td>
<td>Number of releases per year</td>
</tr>
<tr>
<td>Quality</td>
<td>Reduced defect counts and support call volume</td>
<td>Defect data and support call volume</td>
</tr>
<tr>
<td>Partner health</td>
<td>Improving ecosystem relationships</td>
<td>Partner and vendor surveys</td>
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</tbody>
</table>
Laaksonen and Peltoniemi (2018) conducted systematic literature review of dynamic capabilities and their measurement.

Dynamic capabilities are operationalized using by the following:

1. Managers’ evaluations
2. Financial data
3. Company’s experience, actions, and performance
4. Managers’ or employees’ experience, actions, and performance.
Synthesis of recommendations

Laaksonen and Peltoniemi (2018, p.193)
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References
Drucker P. F. (1984), Innovation and entrepreneurship, practice, and principles, Harper &Row, New York,
Laanti M. (2012), Agile methods in large-scale software development organizations, applicability and model for adoption, University of Oulu graduate school, Faculty of science, Department of information processing science, A605.
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References

Schumpeter J. (1934), The theory of economic development, Cambridge, MA, Harvard University Press.