

# **Absorptive Capacity in a Board Context**

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***7th June 2011***

# Absorptive Capacity in a Board Context

## **Focus:**

This presentation contributes by investigating the link between presence of knowledge and skills related to board task performance. Does absorptive capacity act as a mediator, and in case how?

## **Research question:**

Will the introduction of absorptive capacity be a contribution to the description of the role and importance of knowledge management/use of knowledge and skills in boards?

# Absorptive Capacity

Absorptive capacity is one of several dynamic capabilities and describes the effectiveness with which organisations identify, assimilate and use new knowledge (Cohen & Leventhal, 1989).

A process-based definition:

*Absorptive capacity is a firm's ability to utilize external knowledge through the sequential processes of exploratory, transformative, and exploitative learning* (Lane, Koka, & Pathak, 2006, Lichtenthaler, 2009).

# Absorptive Capacity

- Cohen and Levinthal, 1989: "The ability of a firm to recognize the value of new, external information, assimilate it and apply it to commercial ends"
- Zahra and George, 2002: "A dynamic capability pertaining to knowledge creation and utilization that enhances a firm's ability to gain and sustain a competitive advantage".
- Lane et al, 2006:" Absorptive capacity refers to one of a firm's fundamental learning processes: its ability to identify, assimilate, and exploit knowledge from the environment".
- Todorova and Durisin, 2007:" "The ability of a firm to recognize the value of new, external information, assimilate it and apply it to commercial ends"
- Zahra et al, 2009: "Absorptive capacity denotes a firm's ability to identify, accumulate, process and use the new knowledge gained from external sources."

# Absorptive Capacity

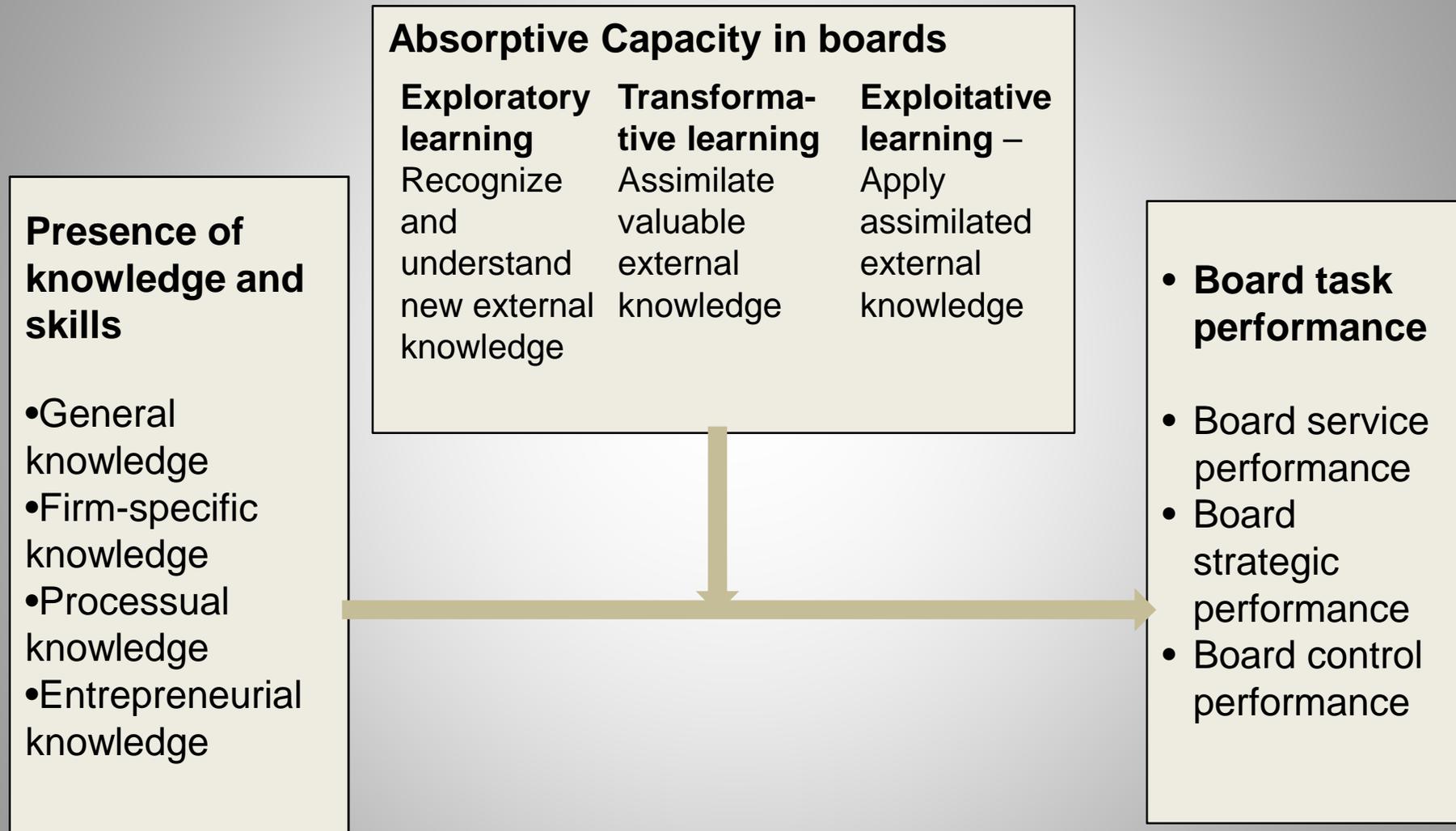
**The quantitative analysis is building on Lane et al:**

- Exploratory learning
- Transformative learning
- Exploitative learning
  
- Definition: :” Absorptive capacity refers to one of a firm’s fundamental learning processes: its ability to identify, assimilate, and exploit knowledge from the environment”.
  
- Model in a firm context
- Tested by Lichtenthaler, 2009

# The Board Context

- Based on board models derived by
- Zahra and Pearce (1989), Forbes and Milliken (1999) and framework by Huse (2005, 2007)
- Forbes and Milliken included three key board processes as ones of great impact on board task performance:
- One of them is the presence and use of general and firm-specific knowledge and skills'. In these process variables the view of the board as a team is directly and indirectly included.

# Absorptive Capacity in a Board Context



# Absorptive Capacity in a Board Context

**Hypothesis 1:** Absorptive capacity mediates the relationship between the presence of knowledge and skills and board task performance.

**Hypothesis 1a:** Exploratory learning mediates the relationship between the presence of knowledge and skills and board task performance.

**Hypothesis 1b:** Transformative learning mediates the relationship between the presence of knowledge and skills and board task performance.

**Hypothesis 1c:** Exploitative learning mediates the relationship between the presence of knowledge and skills and board task performance.

# Absorptive Capacity in a Board Context

Measurements – a challenge?

Absorptive Capacity: Measurements derived by Jansen et al (2005), Cadiz, Sawyer & Griffith (2009) and Lichtenthaler (2009) (up to 25 different variables used for measurement)

Use of knowledge and skills: Measurements derived by Forbes and Milliken (1999) and Huse (2005)

Board task performance: Measurements derived by Huse (2005)

# Absorptive Capacity in a Board Context

## **Testing:**

- The study is based on a big Norwegian survey. Data were collected at two points in time, responses were collected from CEO's and chairpersons in the same firms. This survey has been used by researchers in several countries.
- The results are based on 6-8 pages questionnaires related to the value creating of boards.
- The testing was conducted by multiple regression, and the mediating effect was tested by the method from Barney and Kenney (1986).

# Quantitative analysis - results

- For exploratory learning, transformative learning and for exploitative learning as well as for absorptive capacity the correlations are significant for all variables, and the all over results confirm the mediating effect (details below). The significance is lower for the exploitative learning when testing with the control task as the dependent variable.
- The conclusion is thus that all hypotheses are supported. In general exploitative learning seems to be the weakest mediator.

# Results

- This study is thus supporting the hypotheses, defining absorptive capacity as a significant mediator on board task performance (the strategy, service and control task) with presence of knowledge and skills as the independent variable.
- This result is statistically connecting absorptive capacity to a board context; board task performance and presence of knowledge and skills in boards.

# Results

- Further: The effect of presence of knowledge and skills is strong towards the dependent variables as well as on the mediators.
- This means that the contribution from the board members with regard to knowledge, and the ability of board members of presenting, sharing and conveying their prior and new knowledge with the other member of the board at the meetings and between meetings, is especially important

# Importance

- With the challenges met by boards of today, the processes in boards are becoming even more important than earlier.
- The focus on knowledge, including all kinds of the concept will be another important contribution to practical board performance in the future.

Thank you for the attention