



# HOW ABSORPTIVE CAPACITY ENABLES NEW ENTREPRENEURIAL VENTURES OF HIGH ADDED VALUE

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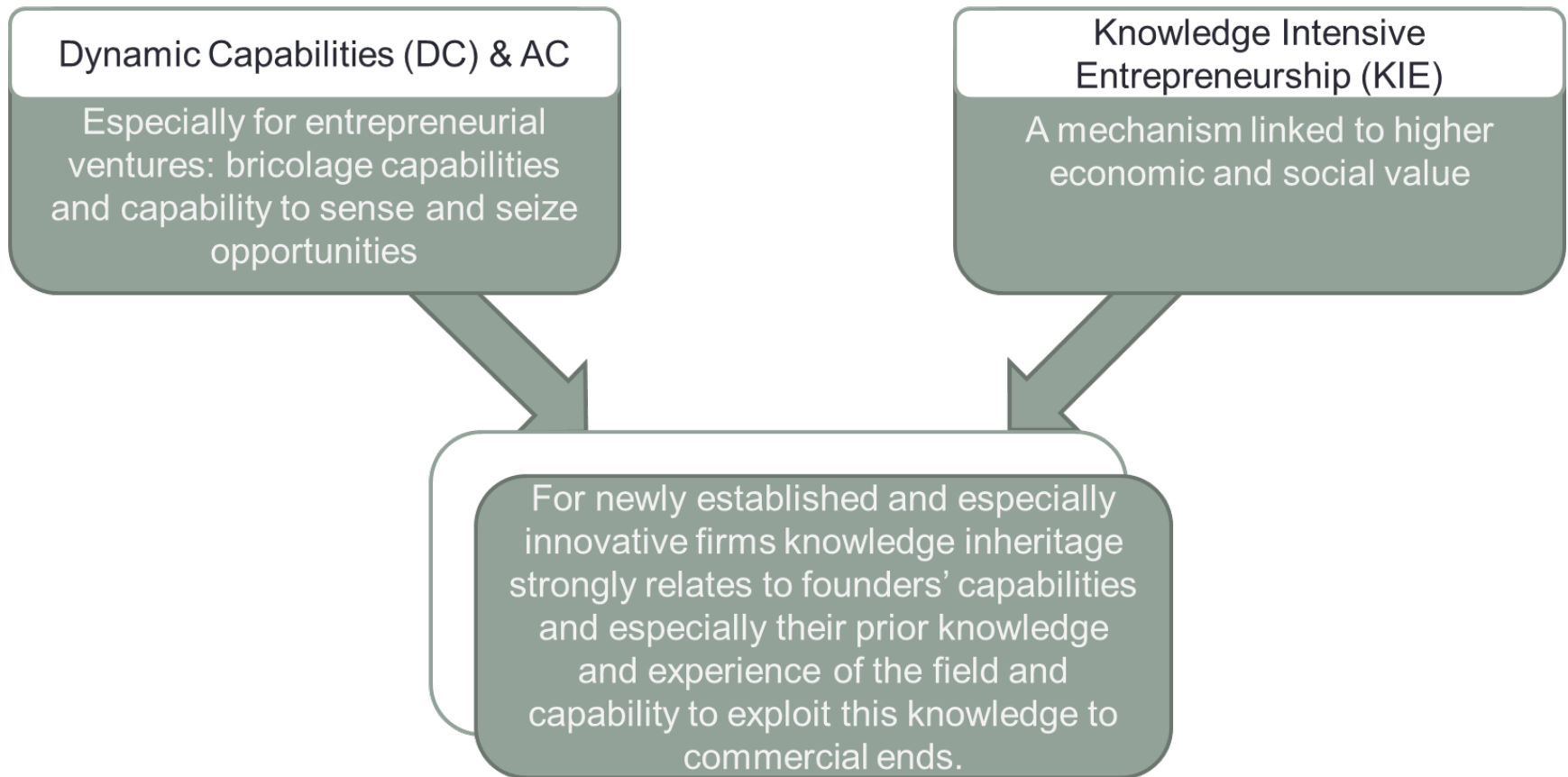
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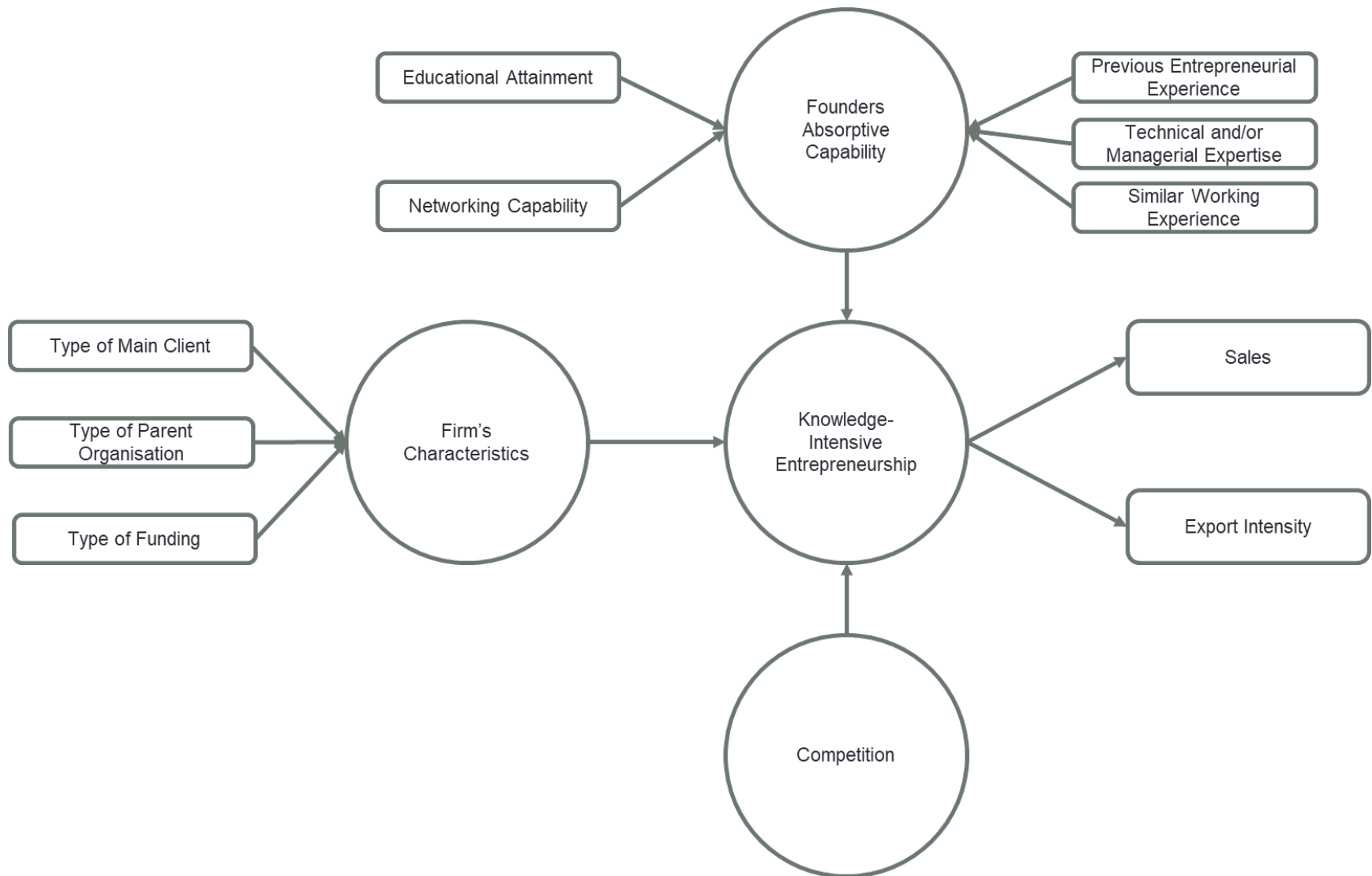
## Aim of the study

- To evaluate the significance of the founder and founding team attributes in the type and performance of newly established firms.
- To address the role of founders' absorptive capability (AC) in creating high potential entrepreneurial ventures.
- To offer insights on the determinants of high potential start-ups formation.

# Conceptual framework



# Theoretical model



# Hypotheses

**H1:** Founders' absorptive capacity is an important attribute determining the formation of KIE.

**H2:** Educational attainment, previous experience in the same field of activity, previous experience in running a business, technical and managerial expertise and networking capability will positively determine the launch of a high potential entrepreneurial venture.

**H3:** New ventures having a University parent organisation or no parent organisation are more likely to launch a knowledge-intensive start up by conceptualising new solutions and new ways of doing things in a rapidly changing context than new ventures linked to established companies.

**H4:** Equity funding is more attracted to KIE as being more opportunity based, with clear strategic objectives and likelihood to survive.

**H5:** We expect a positive relationship of KIE with B2B and B2G types of clients.

**H6:** We expect KIE to appear mostly where competition intensity is high.

**H7:** Knowledge intensive entrepreneurial ventures are likely to demonstrate better business performance and competitive position.

## Empirical study

- AEGIS survey conducted in 2011,
- In ten European countries:
  - Croatia, Czech Republic, Denmark, France, Germany, Greece, Italy, Portugal, Sweden and UK,
- Focused on young firms, established during **2001-2007**,
- In various pre-selected sectors from HT, LT, and Knowledge Intensive business services.
- **Sample of 4004 firms.**
- EU funded project 'Advancing Knowledge-Intensive Entrepreneurship and Innovation for Economic Growth and Social Well-being in Europe' (AEGIS).

# Characteristics of the Sample

## Firms with >10% employees with university degree

- More than **6 out of 10 firms** have more than 10% of their **employees** with a **university degree** (Bachelor, Master or PhD)

## Firm size

- The **majority** of firms are **micro enterprises** (more than 7 out of 10)
- Practically **non existing large firms** (~1%).

## Entrepreneurial Experience

- **15%** of the teams have at least one **serial entrepreneur** in their team
- **3 out of 10** founders have previous **entrepreneurial experience**

## Educational Characteristics

- **7 out of 10** teams have founders with **higher education**
- Relative **limited number of PhD** founders

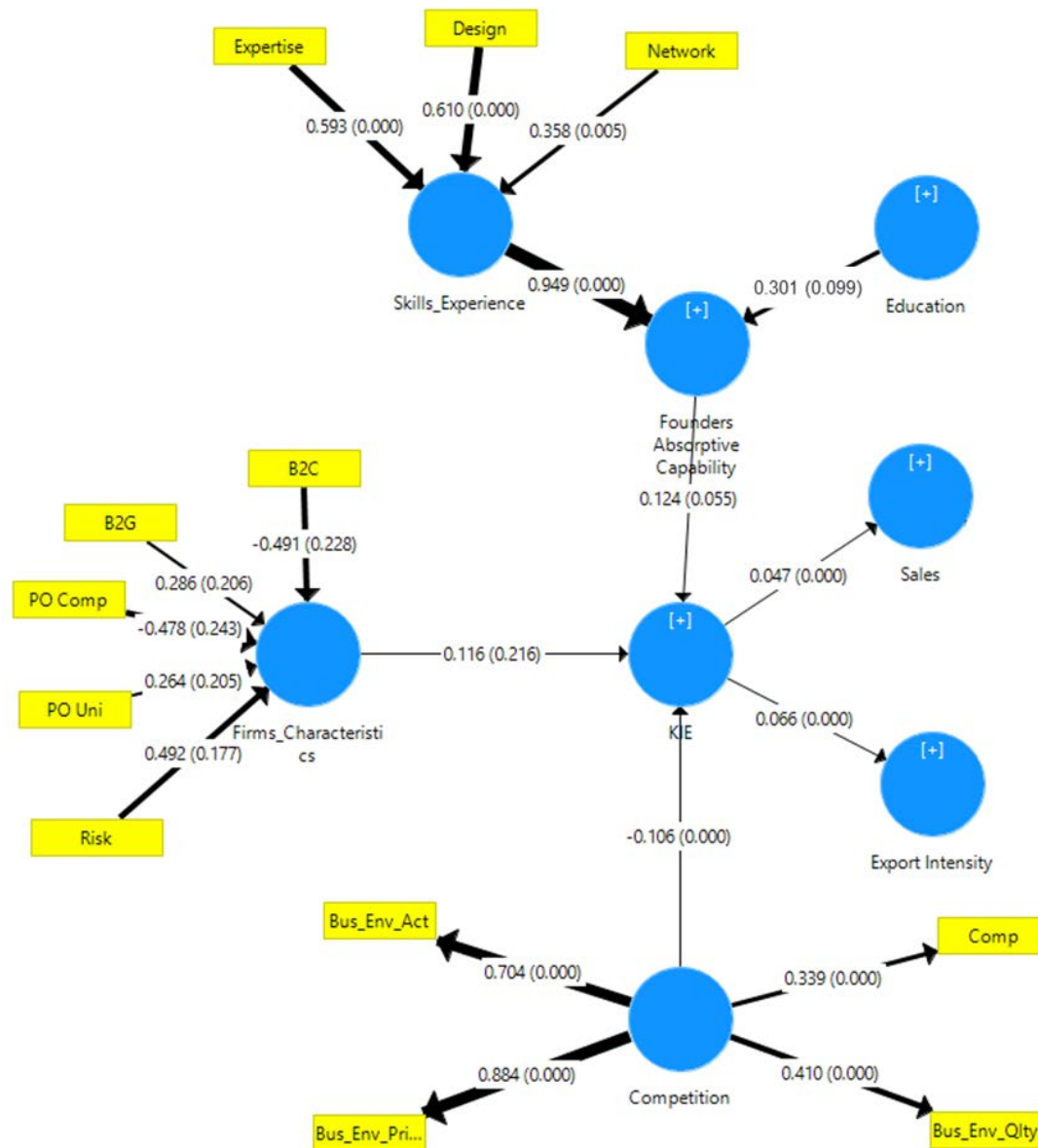
# Variables & Statistical Analysis

## SEM-PLS: Structural Equation Modeling - Partial Least Square

	Variable	Description	Scale	Type	Value
<b>Dependent variables</b>	KIE	Knowledge Intensive Entrepreneurship	Formative	Dummy	1 → No 2 → Yes
	Exports	Export Intensity - During the last three years (2007-2009)	Formative	Continuous	From 0 to 100%
	Sales	Average increase/decrease of sales 2007-2009	Formative	Continuous	From -100% to 100%
<b>Independent variables</b>	B2B, B2G & B2C	Main Client	Formative	Dummy	1 → No 2 → Yes
	PO_Uni, PO_Com & PO_Non	Parent Organisation	Formative	Dummy	1 → No 2 → Yes
	Risk	Equity funding - Level of Risk depending on the Source of Fund	Formative	Dummy	1 → Lower Level 2 → Higher Level
	Comp	Competition - Are there other businesses offering the same products and/or services to your potential customers?	Reflective	Categorical	1 → No other business competitors 2 → Only a few business competitors 3 → Yes, many business competitors
	Bus_Env_Act	Business Environment Activities	Reflective	Categorical	On a 5 point scale, were 1 is completely disagree and 5 is completely agree.
	Bus_Env_Price	Business Environment Price			
	Bus_Env_Qlty	Business Environment Quality			
	Education	Educational Attainment			
	Design	Design knowledge	Formative		
	Network	Networks built during previous career			
Expertise	Which team have at least one founder with Technical, Economical or none experts? (Scale)	Formative	Categorical	0 → none 1 → technical 2 → managerial 3 → combination 1&2	
Professional Experience	Average years of professional experience of founders in the current sector your company is active?	Formative	Continuous	From 0 to ...	
Entrepreneurial Experience	Which team have at least one founder with entrepreneurial experience?	Formative	Categorical	1 → None 2 → At least one entrepreneur 3 → All entrepreneurs	
<b>Control Variables</b>	Size	Size of the company - Number of employees	Formative	Continuous	From 0 to ...



# Measurement model



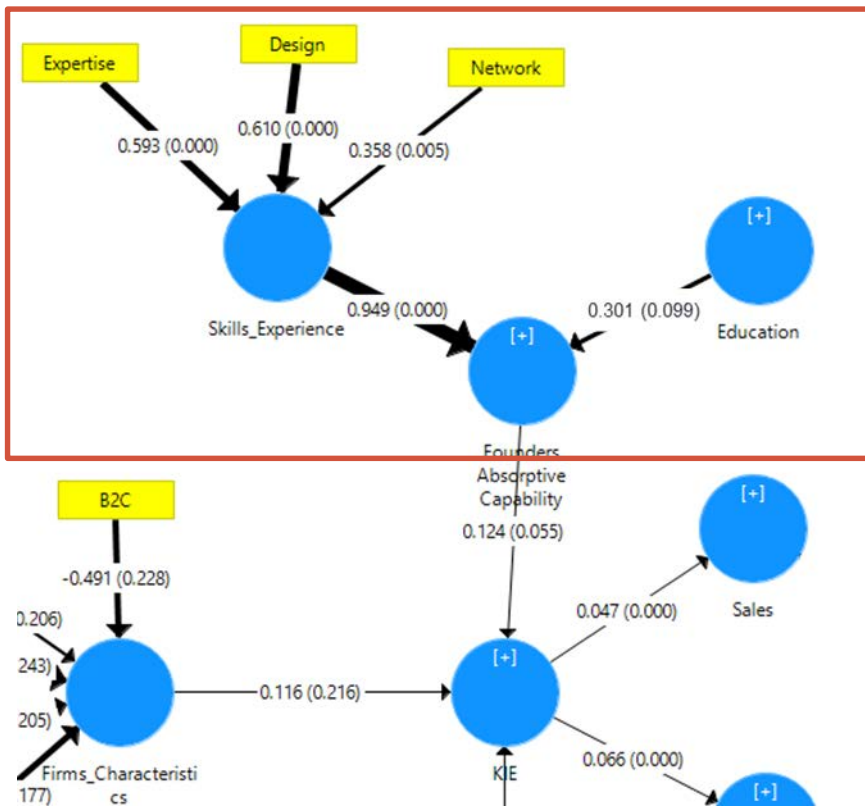
# Measurement model – Founders’ AC

Educational & formation of KIE.



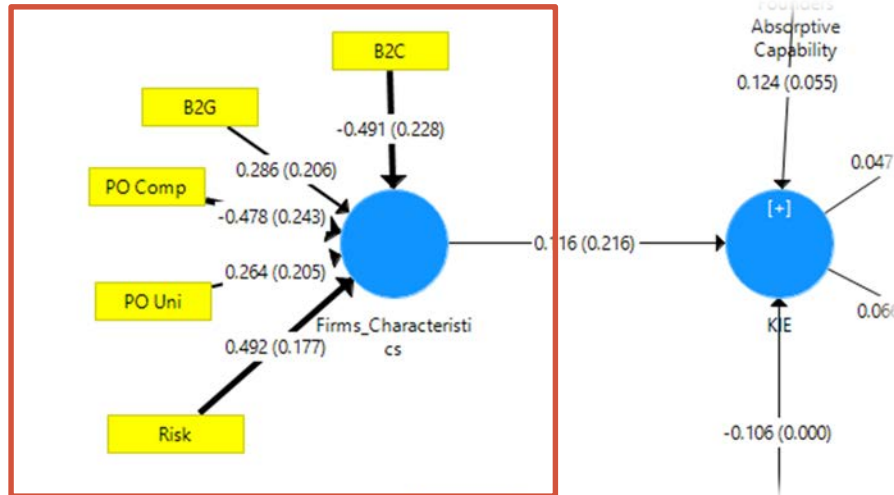
- Statistically significant
- Positive relationship

- Some distinctive specific skills of the founders → +++ → KIE.
- Combination of technical & managerial skills → Synergistic gains



	Hypothesis	Path Coefficient	p-Values	Hypothesis supported
H1	Founders’ absorptive capacity is an important attribute determining the formation of KIE	0.124	0.055	Partially
H2	<b>H2a:</b> Educational attainment will positively determine the launch of a high potential entrepreneurial venture.	0.301	0.099	Yes
	<b>H2b:</b> Previous experience in the same field of activity, previous experience in running a business, technical and managerial expertise and networking capability will positively determine the launch of a high potential entrepreneurial venture.	0.949	0.000	Yes

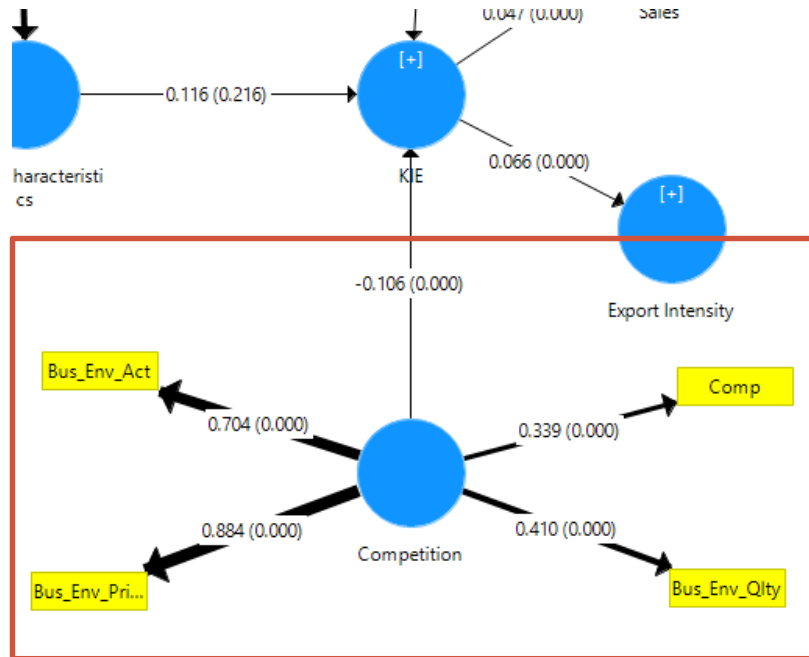
# Measurement model – Firm's Characteristics



Equity funding → higher value added entrepreneurship.

	Hypothesis	Path Coefficient	p-Values	Hypothesis supported
H3	New ventures having a University parent organisation or no parent organisation are more likely to launch a knowledge-intensive start up.	0.264	0.205	No
H4	Equity funding is more attracted to KIE as being more opportunity based, with clear strategic objectives and likelihood to survive.	0.4922	0.077	Yes
H5	<b>H5a:</b> We expect a positive relationship of KIE with B2G types of clients.	0.286	0.206	No
	<b>H5b:</b> We expect a positive relationship of KIE with B2B types of clients.	-0.491	0.228	No

# Measurement model – Competition



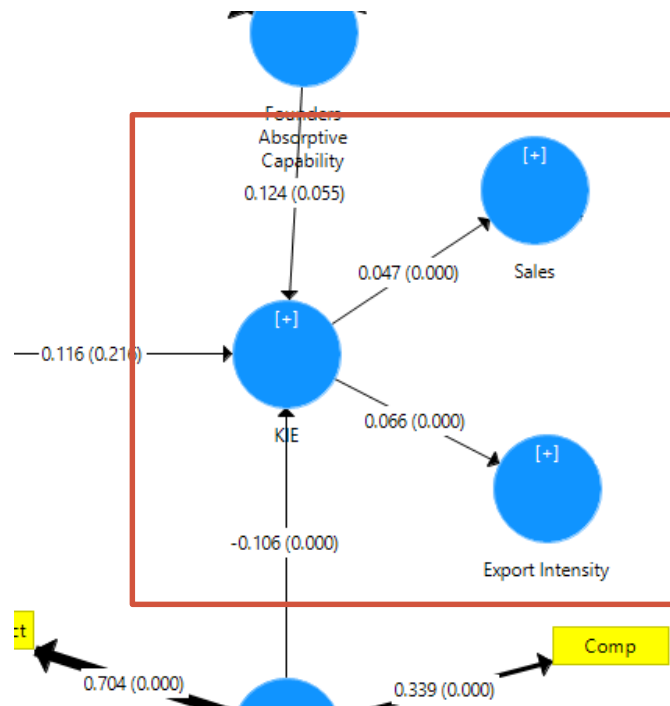
The competition (business environment) → --- → KIE.

- Price
- Quality
- Unpredictability of the competitors' actions
- Number of competitors in the sector

Discourage  
→  
development  
of KIE

	Hypothesis	Path Coefficient	p-Values	Hypothesis supported
H6	We expect KIE to appear mostly where competition intensity is high.	-0.106	0.000	No

# Measurement model – Business performance



Hypothesis	Path Coefficient	p-Values	Hypothesis supported
H7 Knowledge intensive entrepreneurial ventures are likely to demonstrate better business performance and competitive position.	0.047	0.000	Yes

# Discussion | Founder's Characteristics

- Founders' characteristics are **more important** in the **formation process** than other organizational characteristics
- Founders' educational level and specific skills relate positively to:
  - the formation of higher expectations entrepreneurship and
  - higher performance entrepreneurship.
- The probability to form an entrepreneurial venture of high potential increases:
  - when the founders have a combination of management and technical expertise with no expertise of any kind.

# Discussion | Firm's Characteristics

- Positive relationship of equity funding with KIE points to the important role that new funding mechanisms can play in seizing opportunities.

## Discussion | Competition

- Competition intensity appears to be negatively related to KIE
- During the formation process KIE firms, as embedding more advanced and sophisticated knowledge with more uncertain outcomes, might need a more protected environment in order to flourish and succeed.
- Results could be differentiated when taking into consideration the amount of investment initially needed, as they might depend on the level of capital intensity of the new ventures.



## Discussion | Performance of KIE

- Knowledge intensive entrepreneurship is linked to higher sales and export intensity and has demonstrated a better performance during the recent financial crisis.

## Policy implications (1/2)

- Encouraging human capital most exposed to scientific and technological knowledge towards developing additional managerial skills may increase the specific weight of knowledge intensive entrepreneurship to the overall entrepreneurship creation.
- Combination of Science & Technology and Education policy initiatives needed in fostering knowledge based entrepreneurship.
- Investment in education, training and life long learning could result in reshaping the landscape of entrepreneurial ventures, with improved characteristics and successful exploitation of business opportunities.

## Policy implications (2/2)

- The fact that new entrepreneurs might have limited access to financial resources could be counterbalanced by the development of new funding mechanisms resulting from specific technology policy objectives.

## Further steps and limitations

- Further research could distinguish between ventures requiring higher and those requiring lower capital investment and try to link it to competition intensity.
- When targeting the creation of an ecosystem of high potential entrepreneurial ventures, other elements are particularly important as well: structural characteristics of the industrial system, institutional set up, social beliefs etc.

# Thank you for your attention

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