Decision-making Logic and Venture Performance: The Role of Formal Institutions

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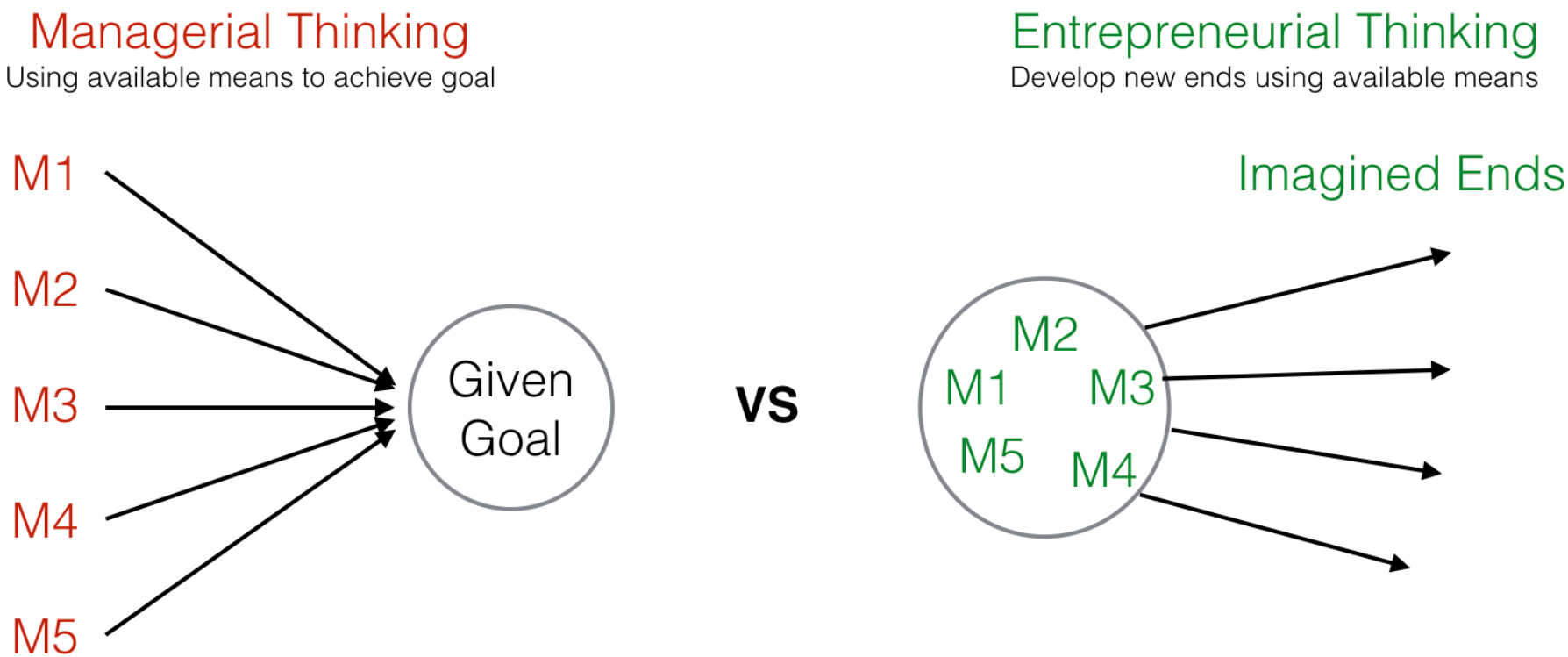
Effectuation theory



Research Motivation

- ✓ To overcome the uncertainties associated with new venture creation, entrepreneurs adopt different decision-making logics: causation and effectuation (Sarasvathy 2001; 2008);

- ✓ Prior studies confirmed that effectuation and causation are both positively related to venture performance (Futterer et al., 2018; Smolka et al. 2016);

- ✓ Less clear is **contextual nature** of these relationship;

- ✓ We focus on the role formal institutions in the relationships between effectuation/causation and venture performance, as institutions were recognized as important regulative mechanisms influencing uncertainty level.

Research Question

How does the institutional environment shape the relationship between entrepreneurial decision-making logic and venture performance?

Theory and Hypotheses

Institutions and entrepreneurial decision-making: Financial system

- Entrepreneurs behave and run their businesses in accordance with their sociocultural and politico-institutional surroundings (Martinelli 2004). Institutions are social structures that reduce uncertainty by shaping and guiding interactions among people and firms (Scott 2008).
- Financial markets provide the capital which buffers the new venture against random external shocks and may be transformed into other resources that are necessary for venture performance (Cooper et al. 1994).
- Well-developed financial system reduces the level of uncertainty during the venture creation process, as the entrepreneur is more aware of a larger range of possible financing sources available as his/her ventures unfolds. When financial institutions are not well-developed, a reliance on causation will be less beneficial for firm performance, promoting effectuation with its emphasis on flexibility and control.

H1a *The level of development of the financial system positively moderates the relationship between causation and venture performance, so that in countries with well-developed financial systems the relationship between causation and venture performance is stronger.*

H1b *The level of development of the financial system negatively moderates the relationship between effectuation and venture performance, so that in countries with well-developed financial systems the relationship between effectuation and venture performance is weaker.*

Theory and Hypotheses

Institutions and entrepreneurial decision-making: Legal system

- The quality of the legal system reflects the ability of a nation to define and enforce the property rights system.
- The establishment of regulatory protection is particularly important for individuals starting a new business, as the ownership of intellectual property is a basic motive for entrepreneurial action (Schumpeter 1961).
- When the legal environment is stable and well developed, entrepreneurs obtain advantages from appropriate protection via property rights, contract enforcement, employment rules, and limits to personal liability, among other legal provisions (Fuentelsaz et al. 2015).
- Lack of predictability in weak legal environments will undermine the effectiveness of causal-based thinking, where one assembles a resource pool and pursues a set of actions based on objectives, and will reward the ability to engage in effectual logic with its tendencies to experimentation, leveraging resources, and adaptability.

H2a *The level of development of the legal system positively moderates the relationship between causation and venture performance, so that in countries with a well-developed legal system the relationship between causation and venture performance is stronger.*

H2b *The level of development of the legal system negatively moderates the relationship between effectuation and venture performance, so that in countries with a well-developed legal system the relationship between effectuation and venture performance is weaker.*

Theory and Hypotheses

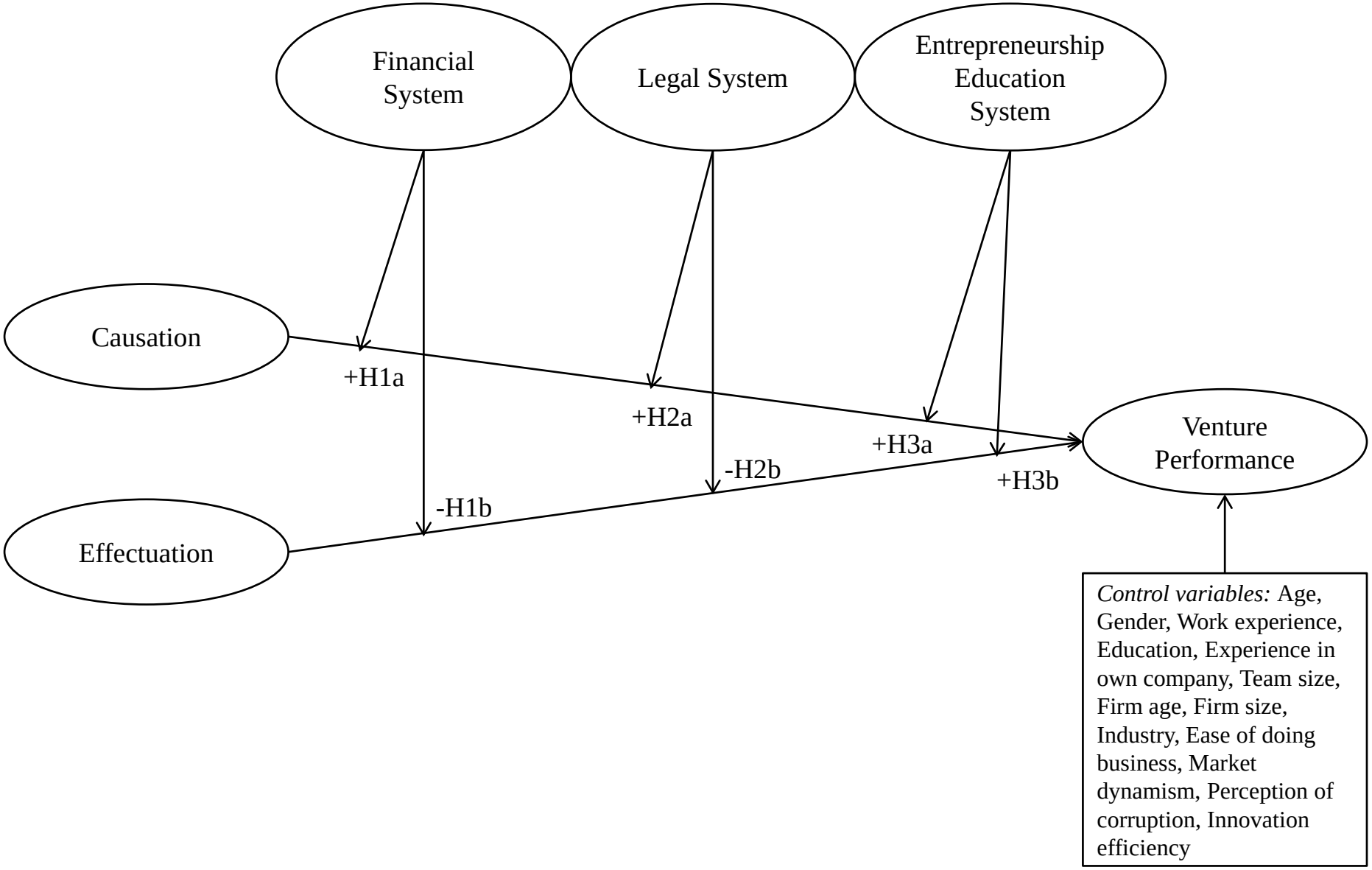
Institutions and entrepreneurial decision-making: Education system

- The presence of an 'entrepreneurship-oriented' educational system increases the likelihood of new venture creation (De Clercq et al. 2013) and significantly influences society's allocation of entrepreneurial effort (Bowen and De Clercq 2008).
- New business creation benefits from the presence of well-developed education system that supplies high-quality human capital.
- Use of business plans and planning logic has historically been a core feature of entrepreneurship education programs (Honig 2004).
- Entrepreneurship education can also help students understand how to bootstrap resources, and engage in bricolage (Morris et al. 2013), skills that contribute to effectuation. Similarly, the popularity of the lean start-up methodology in entrepreneurship education suggests students are learning the importance of experimentation and adaption.

H3a *The level of development of the entrepreneurship education system positively moderates the relationship between causation and venture performance, so that in countries with a well-developed entrepreneurship education system the relationship between causation and venture performance is stronger.*

H3b *The level of development of the entrepreneurship education system positively moderates the relationship between effectuation and venture performance, so that in countries with a well-developed entrepreneurship education system the relationship between effectuation and venture performance is stronger.*

Theoretical Model



Method

Sample

- **Global University Entrepreneurial Spirit Students' Survey (GUESSS) 2013/2014:** group of **active business founders.**
- The final sample: 4413 ventures from 27 countries.

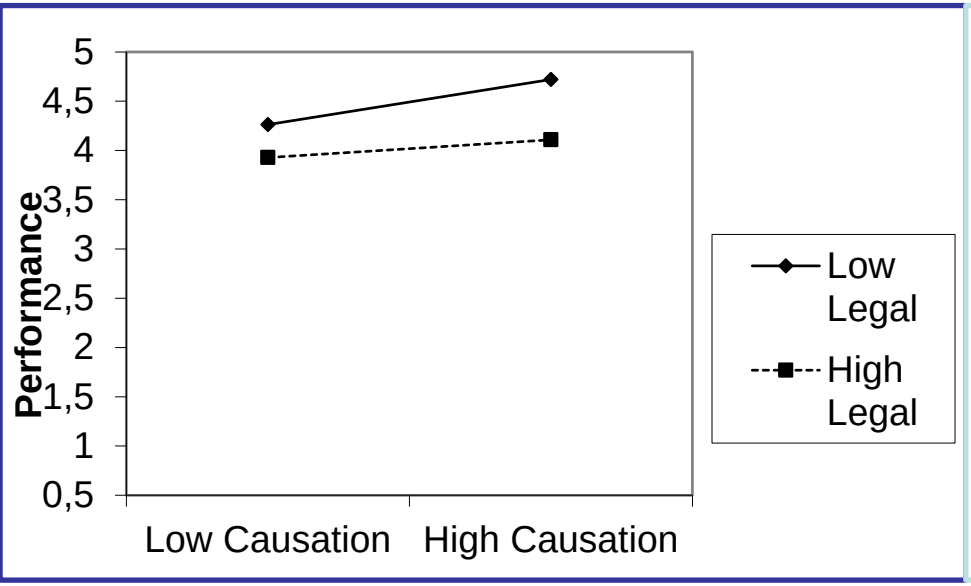
Variable	Source	Cronbach Alpha
Dependent variable - *Performance*	7-point Likert scale; Dess and Robinson(1984)	0.92
Independent variables - *Effectuation* *Causation*	7-point Likert scale; Chandler et al. (2011)	 0.77 0.89
Moderators - *Financial system* *Legal system* *Education system*	 Global Competitiveness Report 2013-2014 Heritage Foundation Index (Miller et al. 2014) GEM Expert Survey 2014 (Singer et al. 2015)	–
Control variables	age, gender, work experience, education, experience in own company, team, firm age, firm size, industry, ease of doing business, market dynamism, corruption, innovation efficiency	

HLM Regression Results

Variables	Model 1	Model 2	Model 3
Gender	0.023	0.033	0.032
Age	-0.035***	-0.031***	-0.031***
Work experience	0.264***	0.226***	0.216***
Education	0.062	0.014	0.010
Experience in own company	0.015***	0.011***	0.011***
Co-founders	0.024	-0.007	-0.001
Firm age	-0.008	0.013	0.012
Firm size (log(employees))	0.588***	0.589***	0.601***
Ease of doing business	-0.003+	-0.003+	-0.001
Market dynamism	0.101	0.105	0.039
Perception of corruption	-0.159	-0.125	-0.058
Innovation efficiency	-0.717	0.286	0.358
Industry dummies	Yes	Yes	Yes
Causation		**0.215*** **	**0.226*** **
Effectuation		**0.200*** **	**0.183*** **
Legal system (LS)			-0.003
Financial system (FS)			0.009
Entrepreneurship education system (EES)			-0.111
Causation_x_LS			**-0.002***
Effectuation_x_LS			**-0.003†**
Causation_x_FS			**0.085***
Effectuation_x_FS			-0.034
Causation_x_EES			-0.087
Effectuation_x_EES			0.050
Wald chi2	478.62(22)***	1136.5(24)***	1226.98(33)***

Note. N=4413. Number of countries: 27. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

Results


Performance
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4
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3
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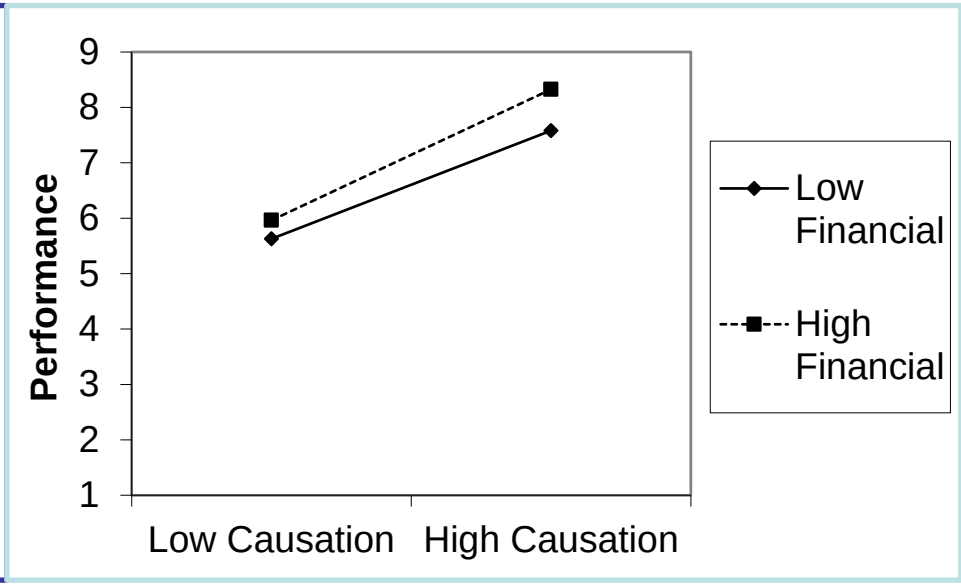
2
1,5
1
0,5
Low Causation
High Causation
Low Legal
High Legal


Performance
9
8
7
6
5
4
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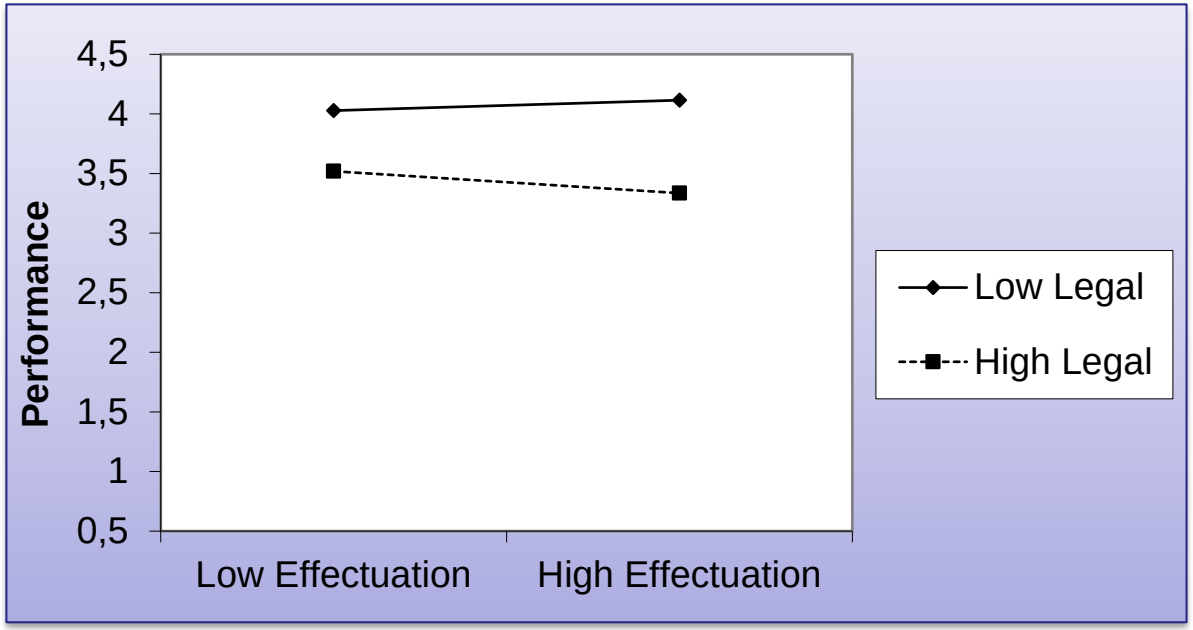
2
1
Low Causation
High Causation
Low Financial
High Financial


Performance
4,5
4
3,5
3
2,5
2
1,5
1
0,5
Low Effectuation
High Effectuation
Low Legal
High Legal

Findings

- Findings from the empirical analysis have partly confirmed our hypotheses.
- Specifically, we found that the level of financial market development positively moderates causation-performance relationship ($b=0.085$, $p<0.05$).
- At the same time, legal system negatively moderates the effectuation-performance relationship ($b= - 0.003$, $p<0.1$).
- *Unexpected finding*: the negative moderation effect of legal system development on causation-performance relationship ($b= - 0.002$, $p<0.05$):
  - overconfidence bias (Trevelyan 2008);
  - new ventures have limited access to funds for legal procedures and actions;
  - well-established legal system is by design favoring established businesses over start-ups.
- The simple slope test indicated causation led to higher performance in the less legally-developed context than effectuation.

Implications for Theory, Research, and Practice

- While both effectuation and causation are clearly important for venture performance, we demonstrate they are contingent upon the level of development of formal institutions.
- We complement the extant research stream supporting the usefulness of effectual decision-making logic under uncertainty, expressed in low quality of legal institutions.
- We demonstrate the value of a multi-level perspective by linking entrepreneurial decision-making research and the institutional perspective.
- For novice and practicing entrepreneurs we state the importance of being cognizant of the level of development of institutions to prioritize their decision-making accordingly.
- We found the dominance of causation principles is more beneficial for student-based ventures performance in financially developed institutional settings, and both causation and effectuation do not significantly impact their profitability in well-developed legal environments.

Limitations

- *First*, the sample for this study consists of a homogeneous group of student entrepreneurs who are often perceived as a limitation. We are trying to mitigate this limitation by focusing on the group of already active founders.
- *Second*, the cross-sectional design of the study may provide some biases. Future studies with longitudinal research design will help to determine the stability of the revealed relationships.
- *Third*, main constructs of the study are operationalized through self-reported subjective measures by respondents. Despite subjective performance was proved to be reliable indicator, future research using objective performance measures is encouraged.
- *Lastly*, including regional aspect into studying the role of institutions in decision-making-performance relationship might benefit future research.

Thank you for your attention!