MEASURING DESIGN THINKING: DEVELOPING A NEW INSTRUMENT FOR ENTREPRENEURSHIP RESEARCH (INTERACTIVE PAPER)

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MEASURING DESIGN THINKING: DEVELOPING A NEW INSTRUMENT FOR ENTREPRENEURSHIP RESEARCH

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Principal Topic

This research aims to facilitate the use of design thinking in entrepreneurship research by developing a scale that measures design thinking as an individual characteristic. Design thinking is defined as “an analytic and creative process that engages a person in opportunities to experiment, create and prototype models, gather feedback, and redesign” (Razzouk & Shute, 2012, p. 330). Two main observations have justified this study. First, entrepreneurship pedagogy has leveraged design thinking in the delivery of course curriculum. A clear example is the lean startup movement which stresses experimentation, prototyping, and customer feedback in the creation of new ventures (Ries, 2011). Entrepreneurship research, however, has not caught up with this educational orientation. Second, there has been research, such as effectuation, that discusses experiential approaches to new venture creation (Sarasvathy, 2001), however, the cognitive micro-foundations that lead to the adoption of these approaches are poorly understood.

Method

We followed the MacKenzie et al.’s (2011) guidelines to develop our construct of design thinking. First, we conceptualized our construct through a compressive literature review followed by a number of expert interviews. This process resulted in the identification of visual thinking, empathy, and experimentation as the three main dimensions of design thinking. Second, we generated multiple items for the aforementioned dimensions and tested their content validity with experts. Third, we specified Reflective First-Order, Formative Second-Order as our measurement model strategy. Fourth, we collected responses from a sample of 252 graduate and undergraduate students from a business school in a Midwestern university to validate our scale.

Results and Implications

Through a two-step purification and validation process, we obtained a model with 9 items and high level of fit ($\chi^2=62.447$, $p<0.131$; RMSEA=0.030; CFI=0.988; SRMR=0.037). Our scale also passed the nomological validity checks through known group comparison and criterion validity tests. Our research has several contributions. Theoretically, we elaborated on the ontological nature of design thinking. Methodologically, we clarified the empirical domain of design thinking by developing a formative construct that meets the requirements of clarity, validity, and reliability. Pedagogically, our scale provides educators with a solid instrument in measuring the effectiveness of design-oriented curricula.

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