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THE ROLE OF TECHNOLOGY DRIVERS IN INNOVATION: A SOURCES OF COMPETITIVE ADVANTAGE FOR SME'S (SUMMARY)

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THE ROLE OF TECHNOLOGY DRIVERS IN INNOVATION: A SOURCE OF COMPETITIVE ADVANTAGE FOR SME’S

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Principal Topic
Innovation is often the mechanism by which small businesses and entrepreneurial firms create value to displace larger and more resource-rich incumbents (Gartner, 1990). Despite the importance of innovation conflicting results in the extant empirical research have left key issues unresolved regarding the sources, determinants, and implications of innovation (Koberg et al., 1996). Using the Resource-based view (RBV) (Wernerfelt, 1984; Barney, 1991), Knowledge-based view (Grant, 1996), and Dynamic Capabilities (DC) (Teece, et al. 1997) theoretical lenses we develop a model and hypotheses for the role technology resources and capabilities in innovation, and their influence on a firm’s competitive advantage.

We argue that competitive advantage is influenced by the configurations of an organization’s set of internal (technology-based) capabilities when aligned with considerations of the external environment of the industry. Internal technological factors, such as a firm’s technology uniqueness, advanced technology and new technology usage act as innovation determinants among small businesses and entrepreneurial ventures given the criticality of innovation for entrepreneurial contexts and strategies (Koberg et al., 1996). Unique responses to idiosyncratic situations faced by firms, may yield heterogeneous innovation capabilities (Ahuja and Katila, 2004), which are more apt to serve as sources of competitive advantage (Barney, 1991). Therefore, we expect that those firms who better align their capabilities with the demands of their industries are more capable of developing innovation-based competitive advantages.

Method
We use test our hypotheses using a sample of 753 Small and Medium Enterprises (SMEs) provided by the National Federation of Independent Businesses (NFIB). We utilize Ordinary Least Squares (OLS) and Hierarchical regression to test our model and hypotheses.

Results and Implications
Overall, our findings indicate that firms should focus their efforts on specific technology driven, innovative capabilities in their endeavor to build competitive advantage. The uniqueness, advanced nature of and newness of an entrepreneurial firm’s technologies offer the basis for developing innovation capabilities and subsequent competitive advantage. This observation is important for research as it reaffirms the importance of an organization’s internal resources and strengths as key contributors to achieving desired organizational outcomes. Additionally, it responds to calls to provide further empirical support (Armstrong and Shimizu, 2007) for some of the core assumptions of RBV.

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