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# **Competitive Process Capabilities and SME Performance: Effects of Top Management and IT Capability**

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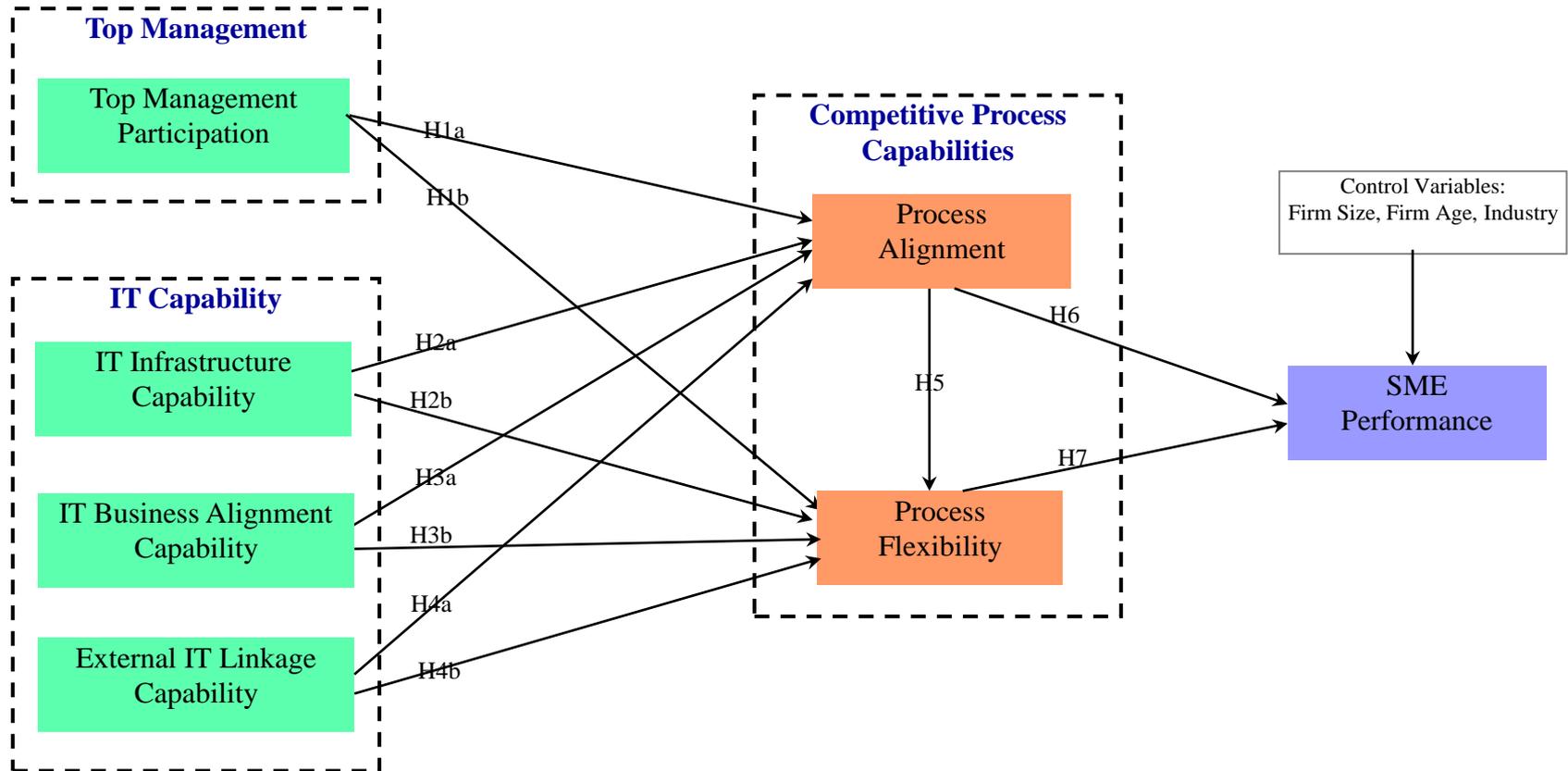
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# Background

- IT business value has become a thematic line of inquiry.
- SMEs are driving engines of most economies (OECD 2010).
- Firm growth is associated with entrepreneurial firm attributes, behaviors, and strategies (Barringer et al. 2005, p.682).
- Inconsistent findings about IT capability and firm performance (Kim, Shin, & Kwon, 2013; Lu & Ramamurthy, 2011; Ho-Chang, Chang, & Prybutok, 2014)
- A comprehensive understanding of underlying mechanism on how IT capability improves firm performance is missing (Kim et al., 2013)
- Limited studies have been conducted to explore the role of top management and IT capability in the development of competitive process capabilities in digital business environment (Mithas et al. 2011)

# Research Model



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## IT Capability

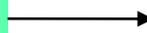
- **IT capability:** a firm's ability to **assemble, integrate, and deploy** IT resources to meet business needs and capitalize on business opportunities
  - ❖ IT Infrastructure capability (**internally focused**): deploy computer and communication technologies, shareable technological platforms and databases in order to exploit business opportunities (Rai & Tang 2011, Zhang et al. 2008)
  - ❖ External IT linkage capability (**externally focused**): exploit IT resources in order to develop durable IT-based connections with business partners to sense and respond to market opportunities (Zhang et al. 2008)
  - ❖ IT business **alignment capability (business-IT strategic thinking)**: envision and exploit IT resources in order to support and enhance business objectives and processes and to create business opportunities (Lu & Ramamurthy 2011)

## Competitive Process Capabilities

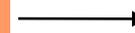
- A firm's abilities to **leverage inter-firm relationships** and achieve business advantage (Rai & Tang 2010 )
  - ❖ **Process alignment:** a firm's process ability to **coordinate and improve** inter-dependent processes; to collaborate with partners on competitive actions
  - ❖ **Process flexibility:** a firm's process ability to **adjust** its product and service offerings in collaboration with business partners; to respond to shifts in customer preferences

### A Hierarchy of Capabilities (Grant 1996)

Lower-order Capability  
(TM and IT Capability)



Higher-order Capability  
(Competitive Process Capabilities)



Firm  
Performance

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## Top Management Participation (TMP) and Competitive Process Capabilities

- TMP involves the top management's behavior and actions
- TMP influences a firm's competitive process capabilities in four important ways
  - ❖ Create appropriate culture, structure and roles to facilitate assimilation of IT innovative practices (Liang et al., 2007)
  - ❖ Enable firms to proactively pursue entrepreneurial opportunities by leveraging personal contacts with business networks (Im & Rai, 2008; Kor & Mesko, 2013)
  - ❖ Promote development of competitive process capabilities by acquiring, integrating, sharing knowledge through personal connections and ties with business partners (Tortoriello, Reagans, & McEvily, 2012)
  - ❖ Allocate and commit resources to facilitate project, resolve conflicts, and build a large knowledge base and structures (Hu et al., 2012)

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## IT Capability and Competitive Process Capabilities

- **IT infrastructure capability provides an integrated platform**
  - enhances data compatibility so as to align processes with organizational boundaries to facilitate activity integration, information sharing and coordination (Dong et al., 2009; Rai & Tang, 2010).
  - enforces standardization and process integration
  - enhances reach and richness of knowledge

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## IT Capability and Competitive Process Capabilities (Cont'd)

- **IT-business alignment capability** emphasizes **IT-business partnership and synergy**
  - foster a mutual respect and trust
  - facilitate information and knowledge sharing and joint decision making
  - create a better understanding how the firm's local actions impact the processes of its partners; resolve difference and lead to high process alignment
  - create a common referent between firms to support sensing-making and perspective-sharing, which leads to process flexibility

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## IT Capability and Competitive Process Capabilities (Cont'd)

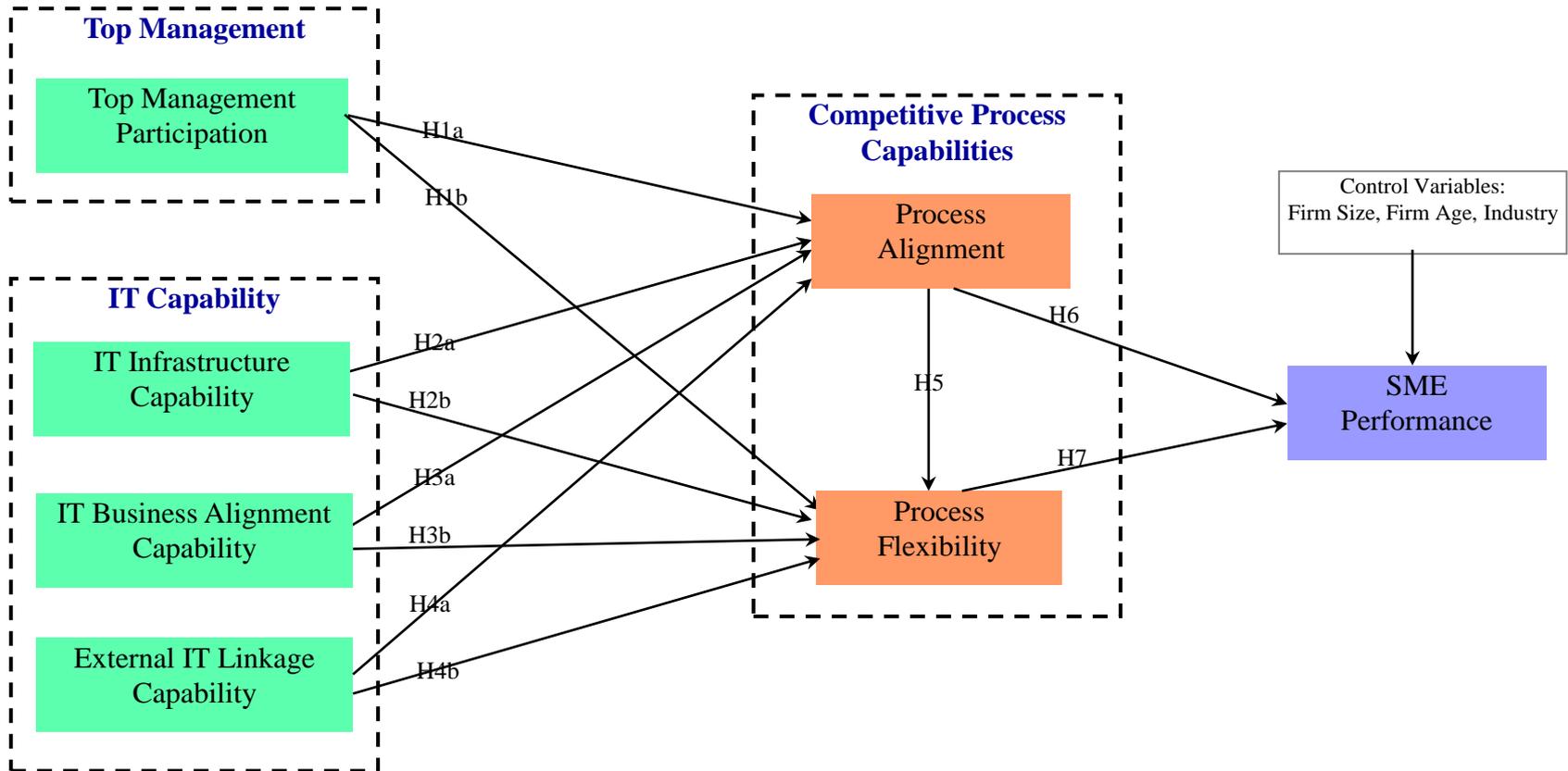
- **External IT linkage capability** emphasizes durable **IT-based connections**
  - support connectiveness, interaction, coordination, and communication (Dong et al., 2010).
  - promote process alignment capability through acquiring the external resources, proactively detecting market information, developing cooperative relationship, resolving the conflicting objectives (Rai et al., 2006).
  - identify, seek and respond to market opportunities by integrating inter-firm operations with business partners and thus creating more flexible and responsive process capability (Rai & Tang, 2010).

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## Competitive Process Capabilities and Firm Performance

- Process alignment and process flexibility
  - Reduce information distortion; provide visibility into process; facilitate mutual adjustment of plans and actions (Perols, Zimmermann, & Kortmann, 2013)
  - Enhance business relationships by sharing information; respond to market changes (Dong et al., 2009; Rai & Tang, 2010).
  - Enhance process flexibility by launching competitive actions (Liu et al. 2013)
- Process alignment, process flexibility and firm performance (Dong et al., 2009; Rai & Tang, 2010; Rosenzweig, 2009 ).
  - To react to market changes,
  - To increase innovation capability
  - To expand into new markets
  - To gain profit, cost efficiency

# Research Model



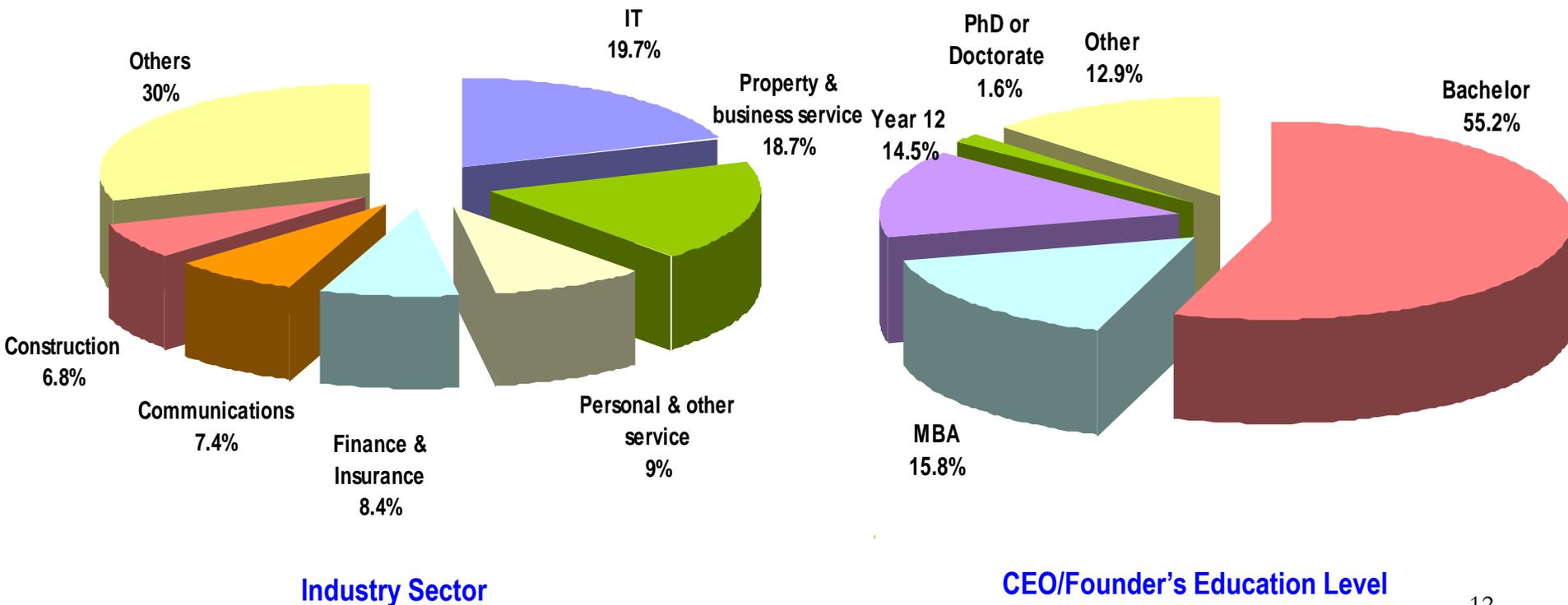
# Research Method

- **Cross-sectional Survey**

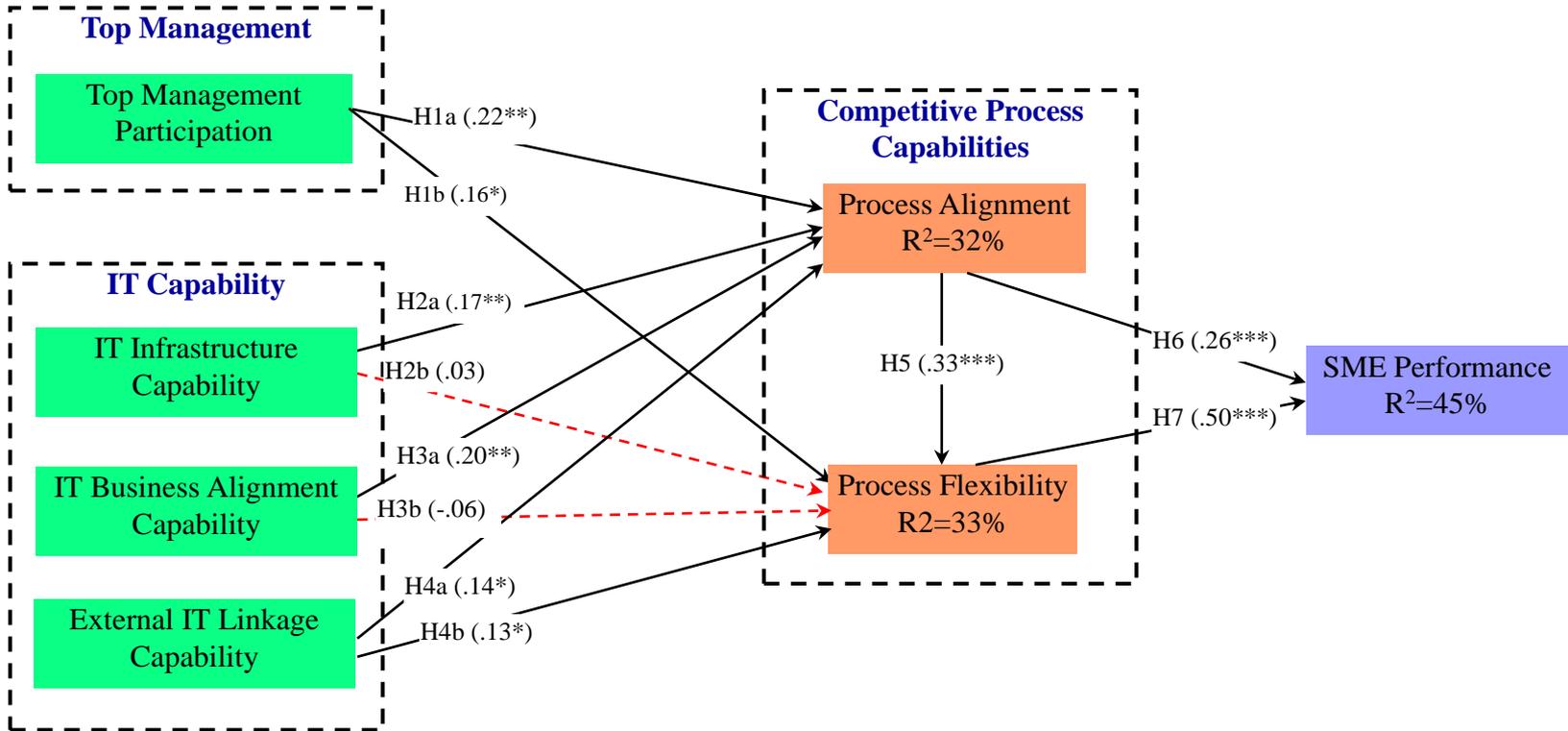
- **Participants:** CEOs/founders from 1,335 Australian fast growth SMEs

- **Final usable data: 310, response rate: 28%**

## Profile of Responding Firms



# Results



\*p<.05, \*\*p<.01, \*\*\*p<.001

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# Implications to Practices

- Provide a framework to understand the role of TMP, IT capability, and competitive process capabilities in SME performance. Managers should understand their significant role in assimilating digital business innovations and developing process competencies.
- Conceptualize IT capability into three dimensions. Managers should be aware that the enabling role of each dimension of IT capability in developing core business competencies.
- Competitive process capabilities provide SMEs with dynamisms to align its processes with business partners, which enables firms to be agile and to achieve and sustain business advantage.
- Managers should understand that building collaborative relationships with business partners is critical when doing business in dynamic environments.

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**Thank you!**

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