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Extending innovation resources to supply chain network

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Research background

- Products are the focal point of manufacturing companies
- New Product Development process: from idea generation, concept testing, product development, and commercialisation.
- The focus was initially on internal resources (R&D, people, technologies)
- Extend to external resources to improve performance
- Customers and suppliers are source of ideas for new products
- Suppliers function have been leveraged from operational to strategic
- Suppliers have complementary resource due to their specialities (not just commodities)



Harrodsburg, Kentucky — Apple today announced it is awarding \$250 million from its Advanced Manufacturing Fund to Corning Incorporated, supplier of precision glass for iPhone, Apple Watch and iPad. Today's award builds on the \$200 million the company received from Apple's Advanced Manufacturing Fund in May 2017. The combined investment supports Corning's research and development into state-of-the-art glass processes, equipment and materials integral to the delivery of next-generation consumer devices.

"Apple and Corning's rich history dates back more than a decade, and our partnership revolutionized glass and transformed the technology industry with the first iPhone," said Jeff Williams, Apple's chief operating officer. "This award underscores Apple and Corning's shared belief in the vital role that ingenuity plays in creating industry-leading products, and the pride that both companies take in applying American innovation and advanced manufacturing to solve some of the world's toughest technology challenges."

<https://www.apple.com/newsroom/2019/09/apple-awards-an-additional-250-million-from-advanced-manufacturing-fund-to-corning/>



Research background

- Relationship with suppliers can be a source of competitive advantage for a buying firm:
 - finding complementary resources with suppliers
 - making relationship investments
 - sharing knowledge
- Building and maintaining collaboration is more complicated than arms-length (operational/transactional) relationship because of higher investment and involvement of greater risks.
- Two ways of governing the strategic collaborations:
 - Legal contracts
 - Social relationship

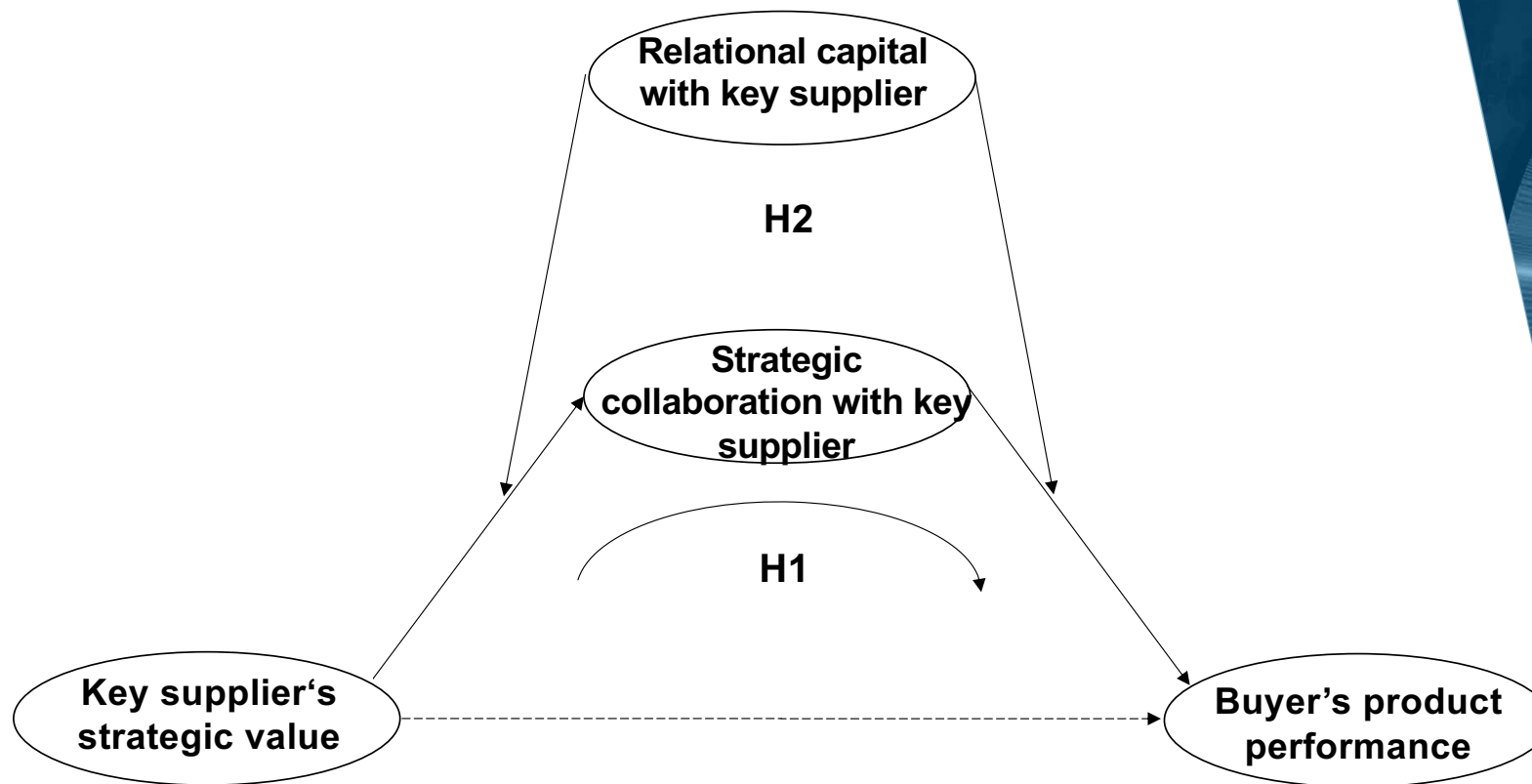
Theoretical foundation and hypotheses

- Extended Resource Based View (ERBV) explains how idiosyncratic inter-firm linkages can be a source of relational rents (Lavie, 2006).
- Buyers will tend to look for suppliers who can offer greater strategic value in terms of the **complementary resources**
- Buyers will try to build stronger collaborative relationships with those suppliers that can offer synergistic resources (Lambert et al., 1996)
- ***Hypothesis 1: Buyer's strategic collaboration with key suppliers mediates the relationship between key supplier's strategic value and buyer's product performance.***

Theoretical foundation and hypotheses

- Relational capital (trust and commitment) is a key enabler of collaboration and an essential element of successful long-term relationships.
- Social Exchange Theory (SET) explains how parties in a relationship evaluate their benefits and adjusting their commitment to the relationships
- The relationship dictates the level of dedication that both parties put on the collaborative processes that ultimately drive performance.
- Relational capital provides a favourable environment for effective strategic collaboration; hence,
- ***Hypothesis 2: Relational capital between buyer and key supplier positively moderates the indirect effect of key supplier's strategic value on buyer's product performance mediated by strategic collaboration***

Moderated Mediated Research Model



Data and analysis

- The sample of Australian manufacturing firms, including food, textile, wood, printing, petroleum, metal, machinery.
- The unit of analysis in this study was a manufacturing firm.
- The targeted respondents were personnel with relevant managerial positions.
- 204 response data were used for analysis.

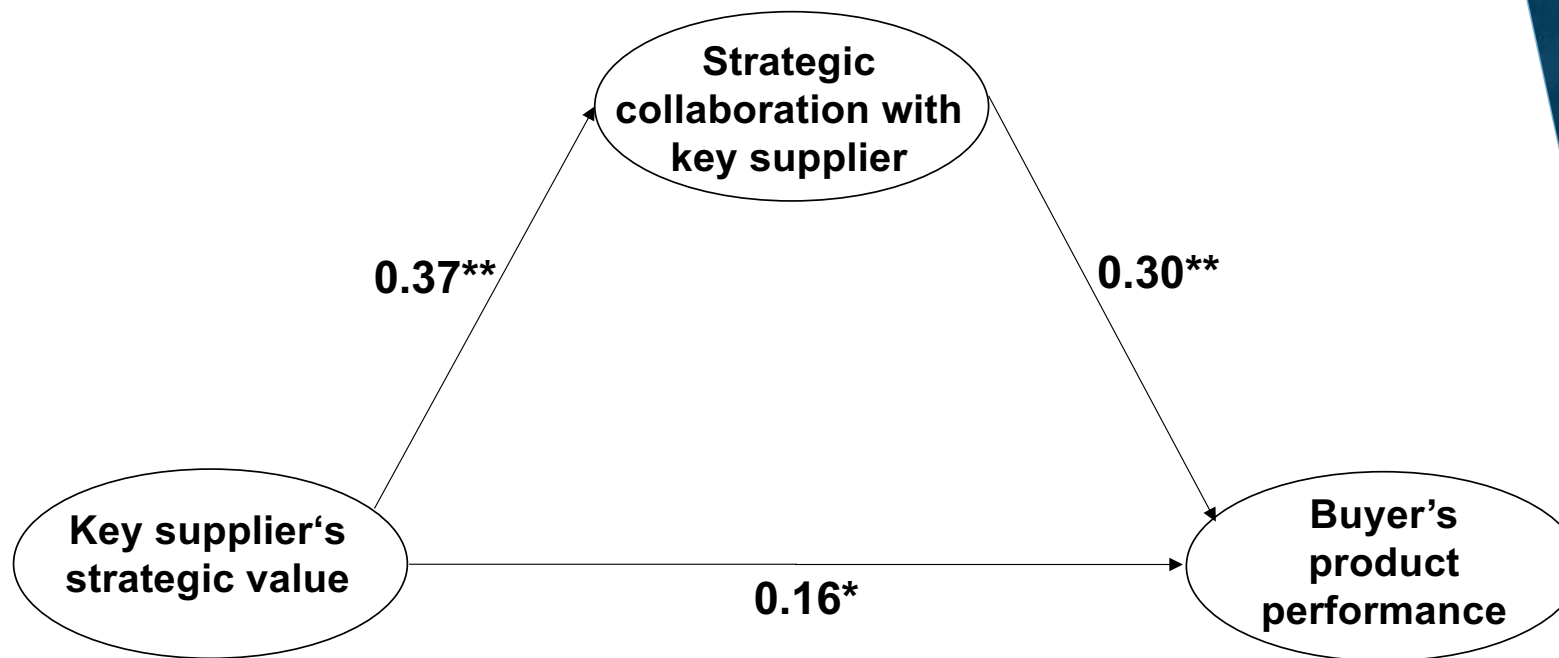


Data and analysis

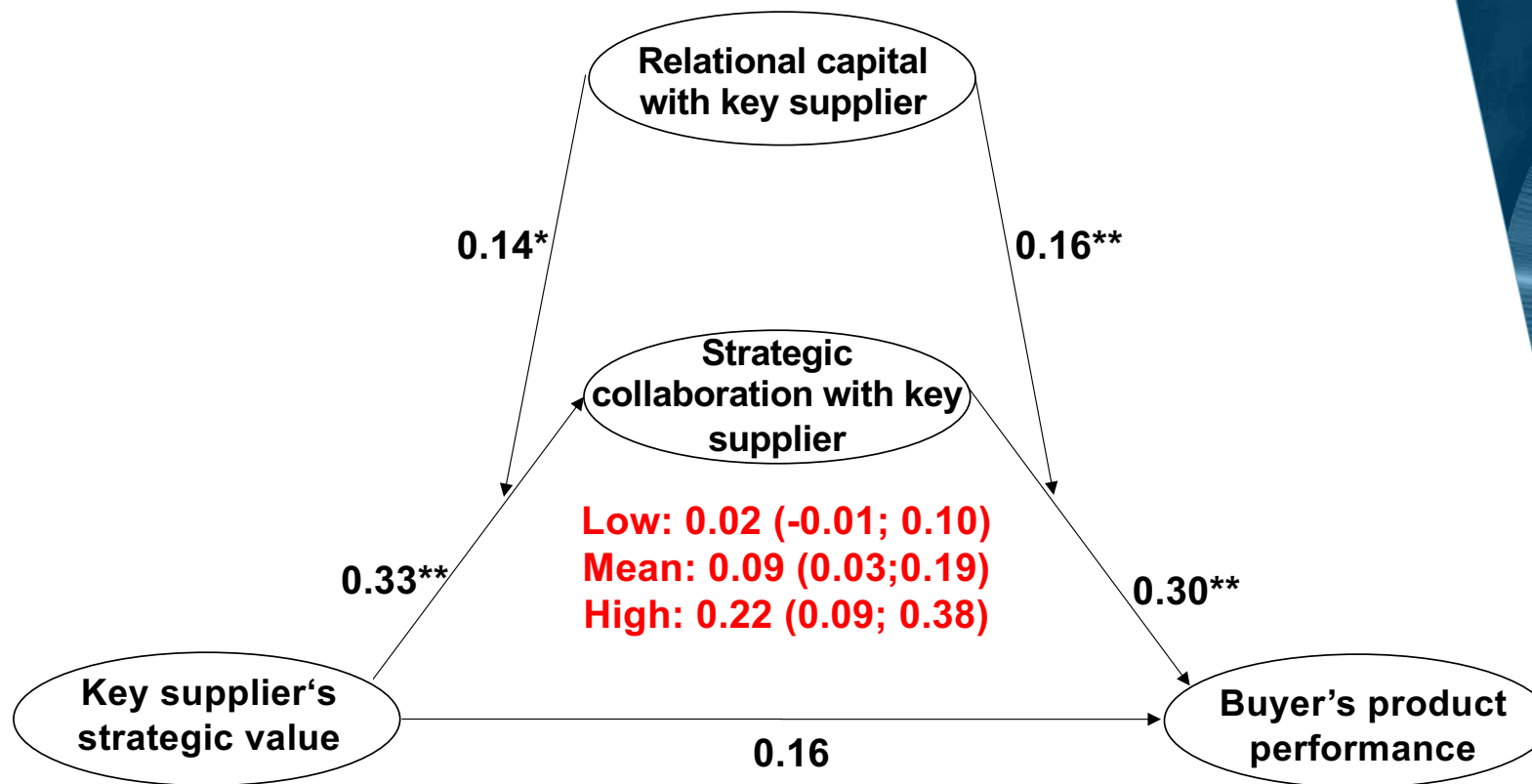
- Measures of the constructs:
 - Key supplier's strategic value
 - Strategic collaborations
 - Relational capital
 - Product performance
- Data analysis:
 - Validity and reliability of four constructs
 - Composite scores of four constructs
 - **PROCESS macro** for moderated-mediating model
 - Model 4: mediating model
 - Model 58: moderated mediated model



Mediated Model (Model 4)



Moderated Mediated Model (Model 58)



Findings (theoretical implications)

- The findings provide further contributions to the understanding of RBV which is traditionally focused on the internal resources to consider their networks as potential resources which can contribute to their performance.
- Using SET, we argue that building strategic collaborations with key suppliers and gaining the collaborative benefits is influenced by the level of relational capital between buyer and supplier.
- The integration of Extended RBV and SET shows that strategic collaborations are not to be considered as a mechanism which can be implemented in vacuum, and must consider the relational element between the collaborators.

Findings (practical implications)

- The findings underscore the need for managers to consider a strategic view (in addition to operational views) in managing their relationships with suppliers (from “merely supplier” to a strategic partner).
- As building internal resources is neither easy nor cheap, firms need to expand their views on building resources from external sources by way of strategic collaborations.
- This study also suggests the importance of building a strong and long-term relationship with the key supplier which allows firms not only to find potential capabilities which are valuable for firms’ performance, but also enables the development of relational capital with the supplier



THANK YOU