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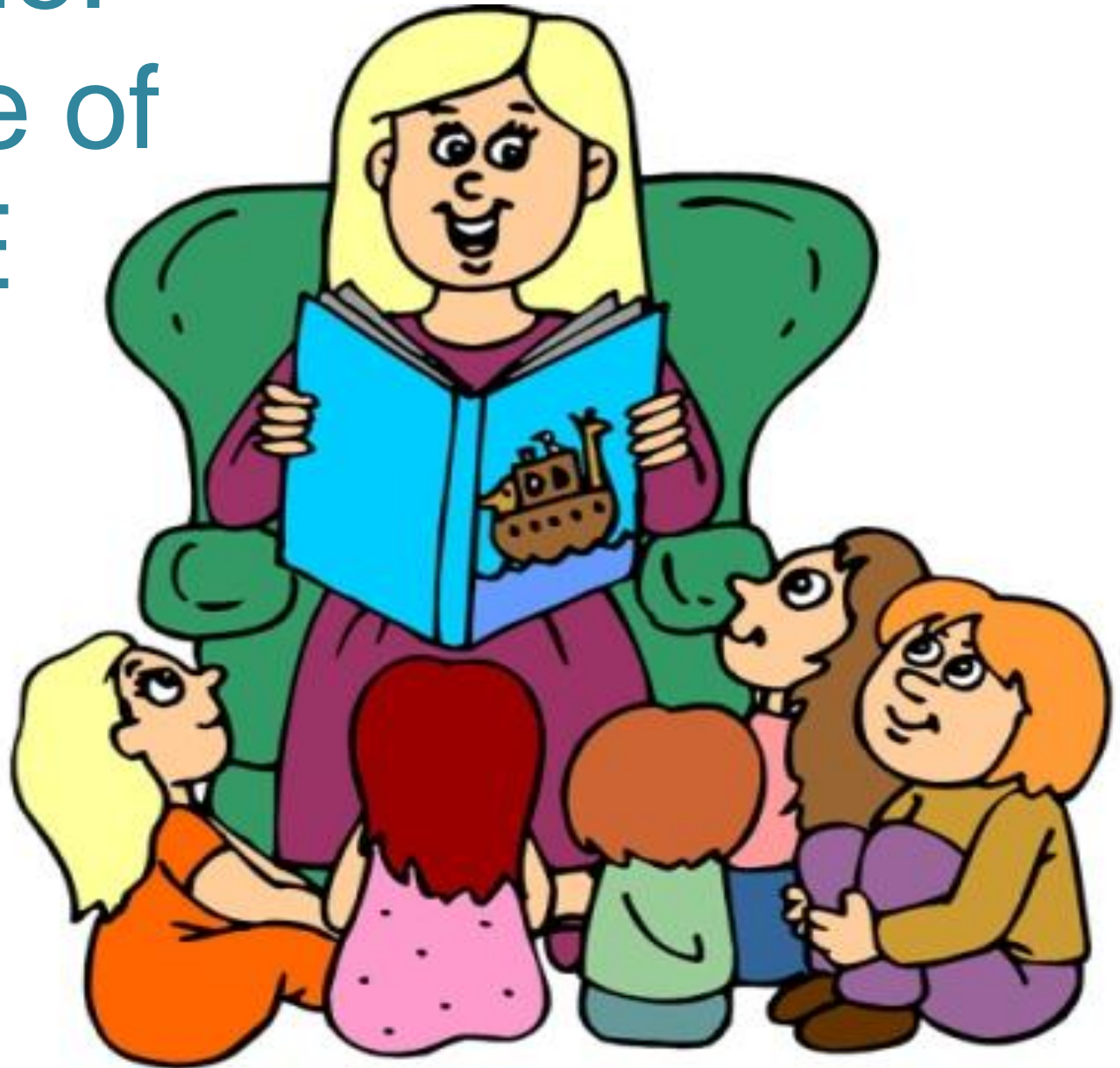
Competing in the New Normal: Intangible Sources of Competitive Advantage in the Digital Economy

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International Institute for Product and Service Innovation
University of Warwick
16 May 2013

Story time: The case of Duke CE
The new normal
The seven intangibles
Story time: The curious case of QoD
Implications and discussion

Story time: The case of Duke CE



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The new normal

Disruption as part of the 'new normal'



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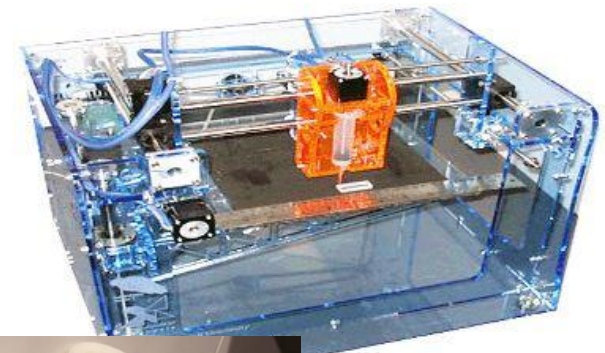
NOKIA



hmv



Some disruptors (and potential disruptors)



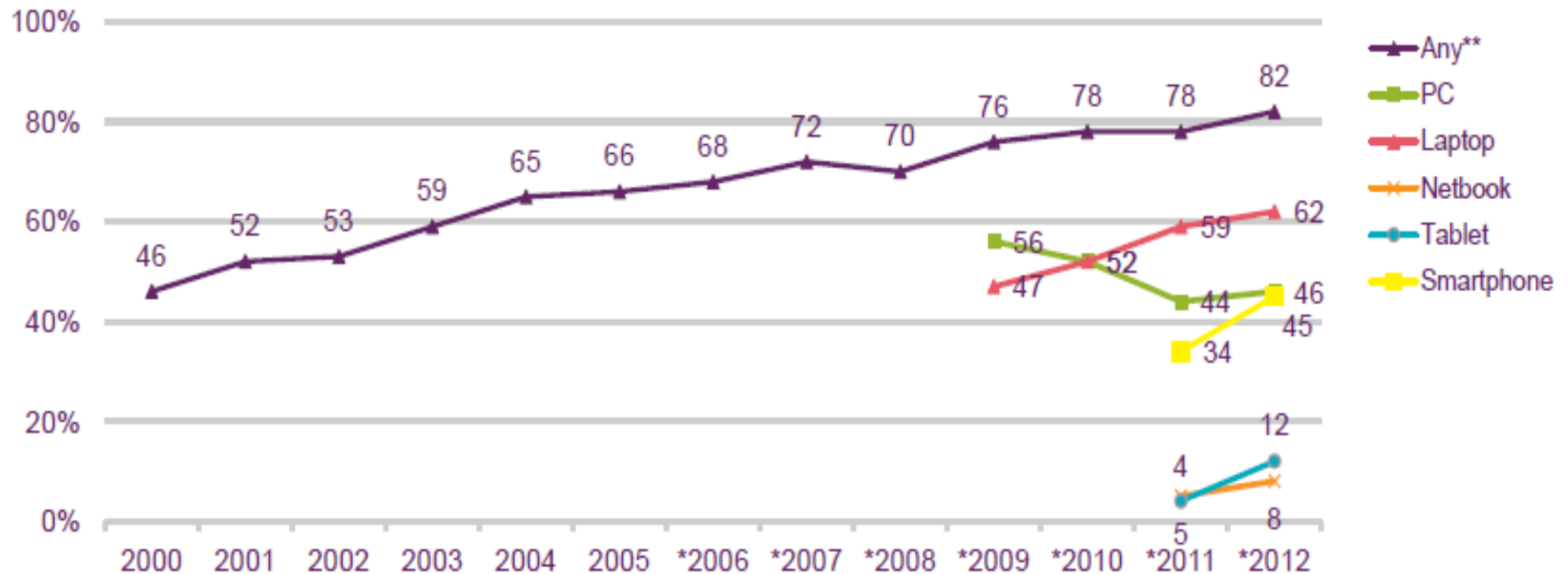
5G



The digital revolution: some implications

- The future is mobile, mobile is the future
- Democratisation of manufacturing
- Disintermediation
- ‘Sacred circles’, ecosystems and network effects
- Commodification and value co-creation
- Real-time, on-demand services
- Data-intensive, high velocity services
- Artificial intelligence
- Obsolescence and shortening life-cycles
- Intellectual property and openness
- Increased marketplace complexity

Ownership of connected devices



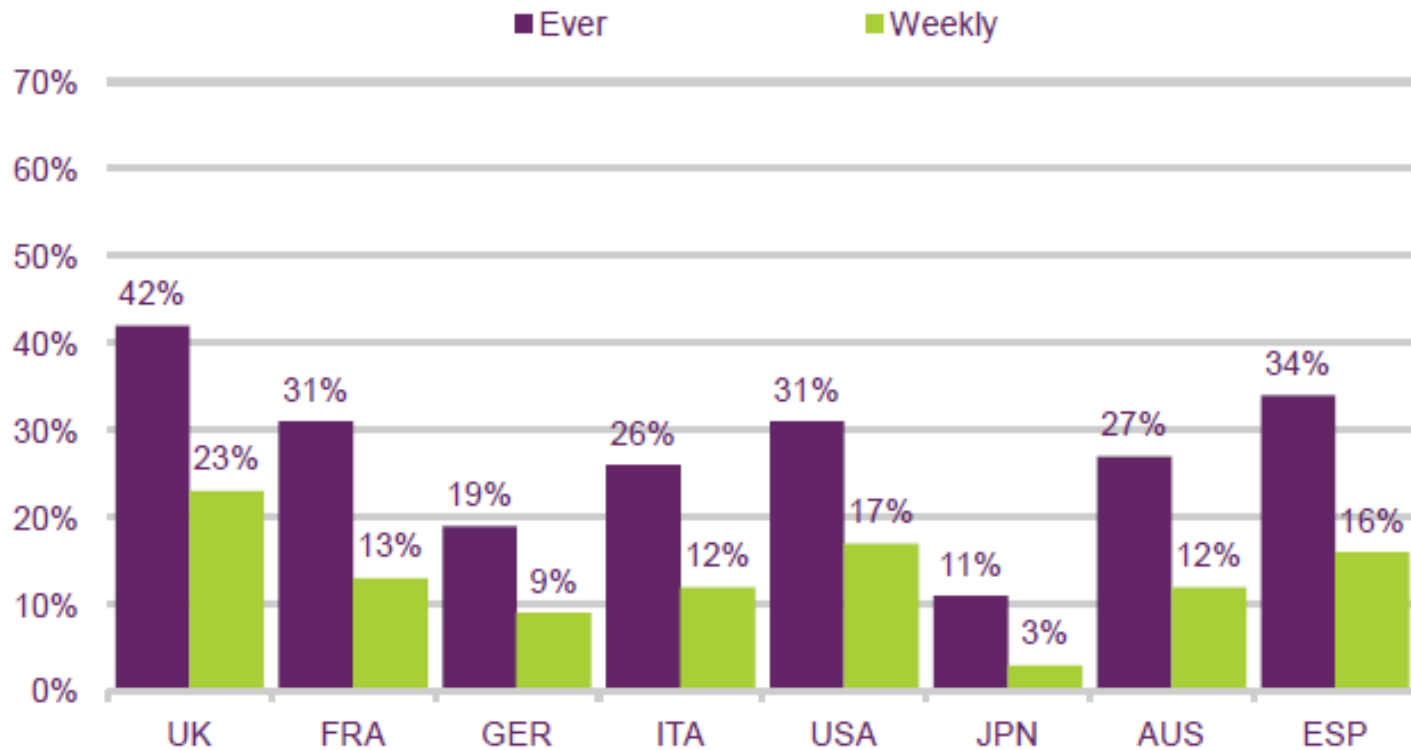
Source: Ofcom communications tracking survey

Base: All adults 16+ (Q4 2000, 2133) (Q4 2001, 2159) (Q4 2002, 2138), (Q4 2003, 2150) (Q4 2004, 2131) (Q4 2005, 2214) (Q2 2006, 2439) (Q2 2007, 2265) (Q2 2008, 2109) (Q2 2009, 2085) (Q2 2010, 2106) (Q2 2011, 2862) (Q2 2012, 2893)

*Note: Data for 2006-2010 based on Q2 data, all other data based on Q4. **Data for 'Any' for 2000-2010 refers to PC or laptop computers. Data for 'Any' for 2011-2012 also includes netbook or tablet computers but not smartphone.

QE1. Does your household have a PC, laptop, netbook or tablet computer?

Accessing television content online



Source: Ofcom Consumer Research October 2012

Base: Total sample size UK=1065, France=1016, Germany=1024, Italy=1015, US=1010, Japan=1004, Australia=1007, Spain=1001
Q. Which of the following activities do you use your home internet connection for?

The internet and web-based content market

	2007	2008	2009	2010	2011	2012
PC/laptop take-up (%)	71	72	74	76	78	79
Internet take-up (%)	64	67	73	75	77	80
Total broadband take-up (%)	52	58	68	71	74	76
Fixed broadband take-up (%)	n/a	n/a	68	71	67	72
Mobile broadband take-up (%)	n/a	n/a	12	15	17	13
Internet on mobile-phone take-up (%)	n/a	n/a	20	21	32	39
Social networking online take-up (%)	n/a	20	30	40	46	52
Internet advertising expenditure (£)	2.8bn	3.4bn	3.5bn	4.1bn	4.8bn	n/a
Mobile advertising revenue (£)	n/a	29m	38m	83m	203m	n/a

Source: Ofcom (2012), Communications Market Report 2012, London: Office of Communications.

How firms used to compete: the factors



How firms used to strategise: the Porterian legacy



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Emirates



John Lewis



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But things have just become more complex

Digitisation of economic activities has resulted in:

- High connectivity and wide reach (Dutta and Segev, 1999).
- Volume, variety and richness of information (Evans and Wurster, 1999).
- Improved measurement of business activities (Brynjolfsson, 2011).
- Exchange revolves around transactions (Balakrishnan et al., 1999).
- 'Transactions' focus on information goods and networks (Shapiro and Varian, 1999).
- Emergence of and sharing within virtual communities (Hagel and Armstrong, 1997).
- Disintegration of traditional value chains (Sampler, 1998).
- Faster and cheaper experimentation (Brynjolfsson, 2011).
- Increased ability to replicate and imitate (Brynjolfsson, 2011).

So what do they imply?

Connectivity and reach

Volume, variety and richness

Measurement

Transactional exchanges

Virtual communities

Value chains

Experimentation

Replication and imitation

Glocal strategy

Broader positioning

Innovative products/services

Widening networks

Innovative business models

Scale opportunities

Widening networks

Innovative products/services

Veracity and trust

Strategic and tactical manoeuvres

Operational refinement

Innovative products/services

Widening networks

Relationships and trust

Scale opportunities

Veracity of information

Relationships and trust

Repositioning

Cost efficiency, products/services

Agility and flexibility

New opportunities for innovation

Operational efficiency

Enabling culture

Human capital

Cost efficiency

Lateral expansion

Visionary people

An integrated framework for strategy



The seven intangibles





Salient features

- The Porterian school isn't dead yet (Porter, 1980, 1985, 1996, 2001).
- Creating defensible positions to fend off competitive forces.
- Differentiation along the value chain.
- Clever (re)positioning is all the more important in the digital economy.



Differentiation still matters

- Reconfiguring value chain to perform activities different to competitors'; e.g. moving online to become e-tailer.
- Same value chain activities, but in different ways; e.g. Apple's focus on UX vs others' on functionality.
- Enrich the value chain; e.g. 'fully-enabled' retailer'.
- Hybrid value chains; e.g. manu-services.

Jackpots and deathtraps



- Market share
- Brand leadership
- Brand loyalty
- Bargaining power



- Price wars
- Imitation
- Inability to stand out

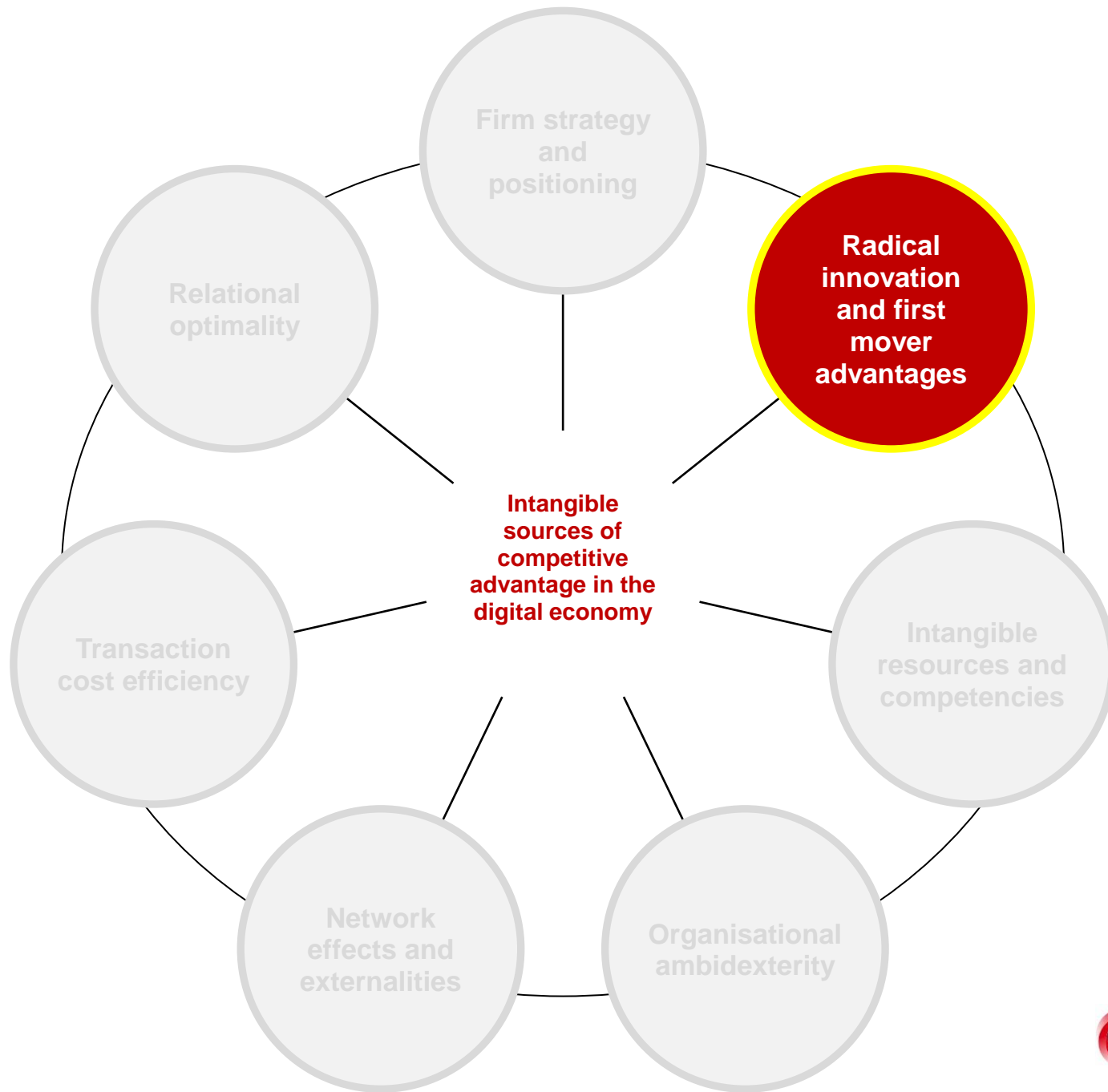


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Salient features

- Essentially Schumpeterian (Schumpeter, 1934, 1939, 1942).
- Radical innovation leads to creative destruction of old practices, products and services.
- Novelty and first mover advantages as key sources of rent creation.
- New ways to (co-)create value (Ng, 2013).
- Profit advantage: 10 years in consumer and 12 years in industrial (Boulding and Christen, 2001).



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Beware of the close followers!

- First mover disadvantages (Teece, 1982; Boulding and Christen, 2001).
- High costs and steep learning curve associated with pioneers.
- Digital economy affords opportunity to imitate.
- Switching costs are low, ceteris paribus.



Jackpots and deathtraps



- Dominant market position
- Dominant technological trajectories
- Head-start rents
- Market skimming and harvest



- First mover's curse
- Aggressive close followers
- Inefficient or inappropriate IPR regimes

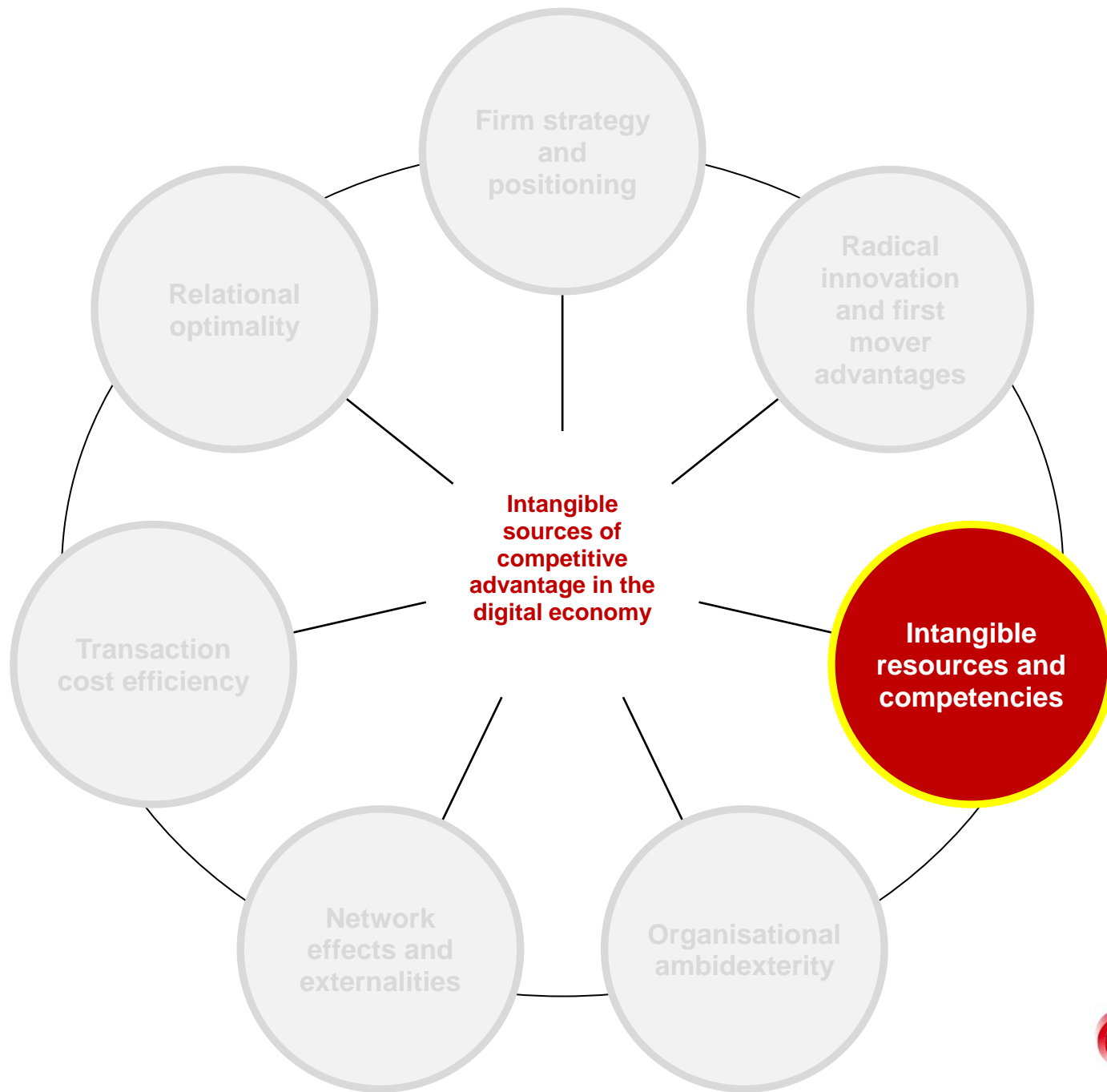


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Salient features

- Derived from the resource-based view of the firm (Penrose, 1959; Wernerfelt, 1984; Barney, 1991; Peteraf, 1993).
- Important assumption: resource bundles and capabilities are heterogeneous across firms (Conner, 1991; Lippman and Rumelt, 2003).
- VRIN: valuable, rare, inimitable, non-substitutable
- In the digital economy – beyond merely tangible resources

Some relevant resources

- Strong intellectual capital (Prahalad and Hamel, 1990; Nonaka, 1994; Davenport and Probst, 2002).
- Dominant brands and corporate reputation (Aaker, 1991; Doney and Cannon, 1997).
- Institutionalised competencies (King et al., 2001; Dosi and Teece, 1998).
- Strong and effective cultures (Barney, 1986; Kotter and Heskett, 1992; Denison and Mishra, 1995).

SIEMENS

1  +8% \$77,839 \$m	2  +129% \$76,568 \$m	3  +8% \$75,332 \$m	4  +26% \$69,726 \$m	5  -2% \$57,853 \$m	6  +2% \$43,682 \$m	7  +13% \$40,062 \$m	8  +12% \$39,385 \$m
9  +40% \$32,893 \$m	 +1% \$28,888 \$m	10  +9% \$30,280 \$m	11  +10% \$30,097 \$m	12  +18% \$29,052 \$m	13  -3% \$27,438 \$m	14  +7% \$27,197 \$m	15  -8% \$26,087 \$m
 +1% \$24,898 \$m	16  +4% \$24,898 \$m	17  +2% \$23,577 \$m	18  +28% \$22,126 \$m	19  -16% \$21,099 \$m	20  +26% \$18,625 \$m	21  -11% \$17,280 \$m	22  +14% \$16,594 \$m



The twin challenges

Resource preservation

- Dissemination and migration
- Codification
- Institutionalisation

Resource ownership

- Owning vs renting/sharing
- Open innovation



Jackpots and deathtraps



- Capabilities- and ideas-driven rent creation
- High performance
- Knowledge acquisition and learning
- Customer loyalty
- Sustainability



- Mobility and flight of resources
- Fixation and inertia
- Owner-of-nothing

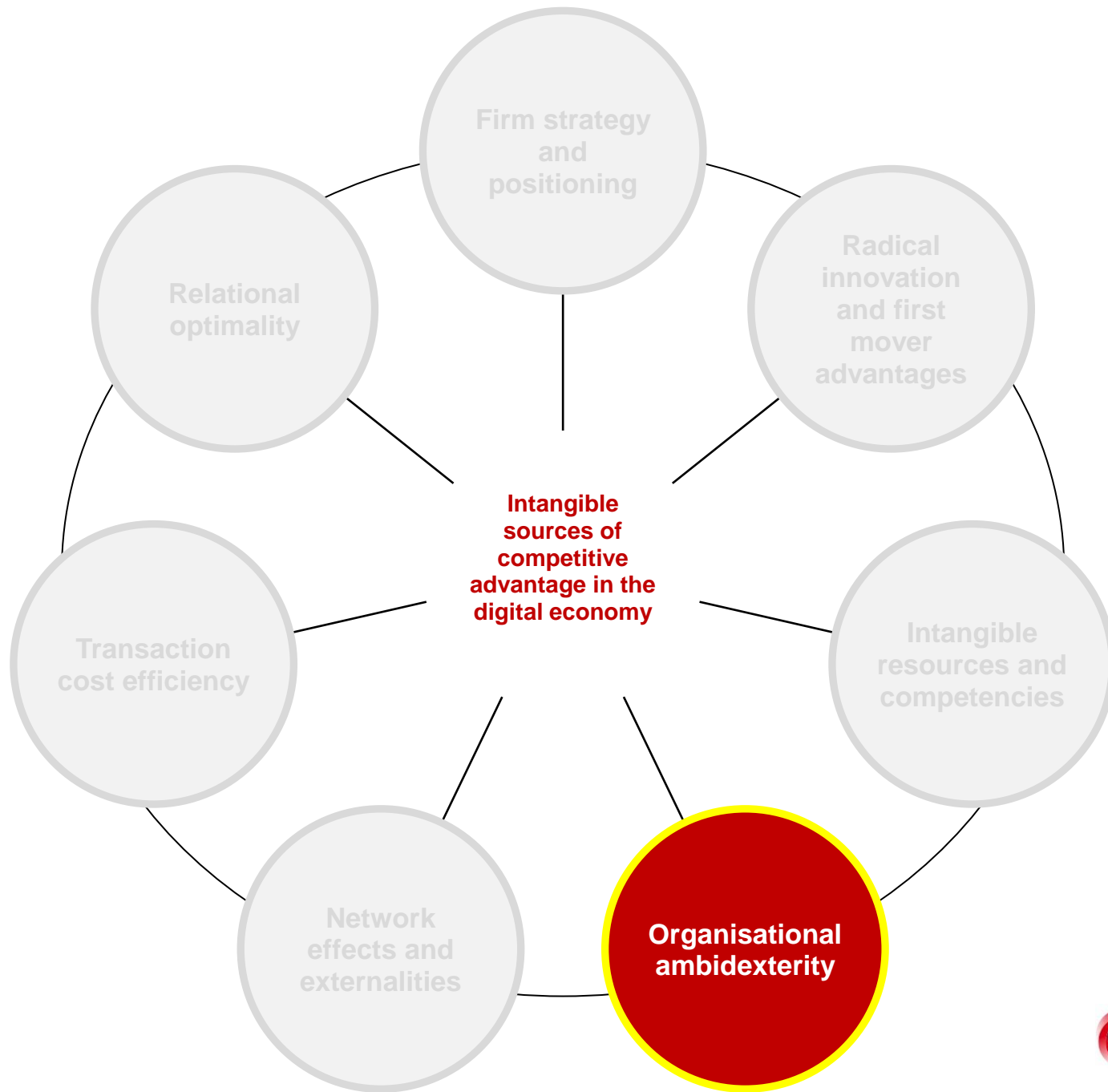


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Salient features

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- Large stocks of resources per se don't guarantee competitive advantage.
- Firms need dynamic capabilities (Teece et al., 1997; Teece and Pisano, 1994; Eisenhardt and Martin, 2000).
- Rooted in organisational processes, routines and practices.
- Examples: exploration-exploitation (March, 1991); sensing-seizing (Harreld et al., 2007).

Ambidexterity makes them tick

- If dynamic capabilities = resource, ambidexterity = ability to make good use of that 'resource'
- Long-term competitiveness in dynamic markets lies in resource configurations (Eisenhardt and Martin, 2000).
- Organisational ambidexterity (O'Reilly et al., 2009; Harreld et al., 2007) – flexibility and agility.
- Origins in paradox theory (Smith et al., 2010; Hampden-Turner, 1990).



Jackpots and deathtraps



- Spotting and capturing opportunities
- Mitigating threats
- Market creation/extension
- Reinvention



- Demand on scarce resources
- Much ado about nothing
- Mud-on-the-wall syndrome

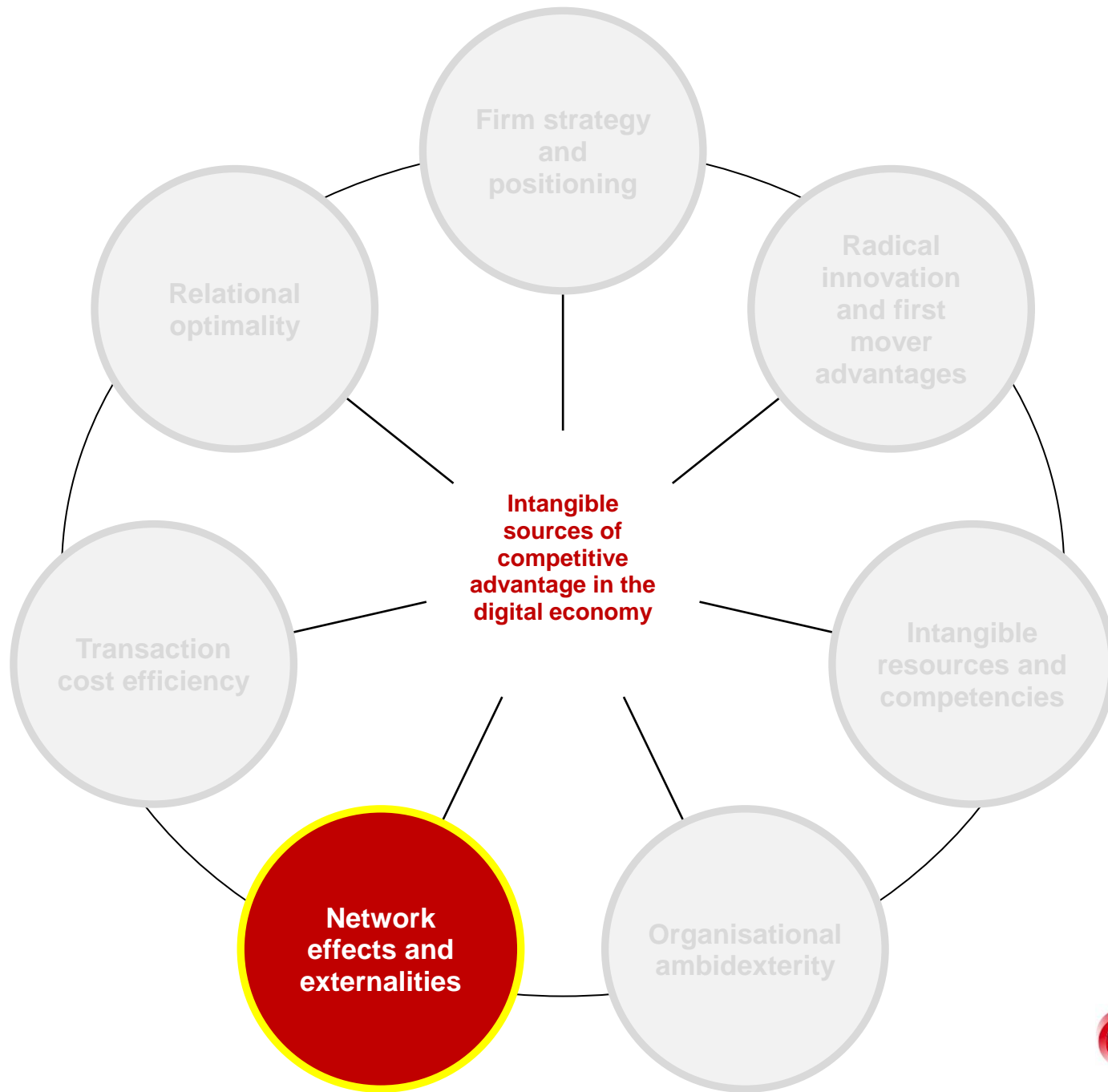


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Network externalities

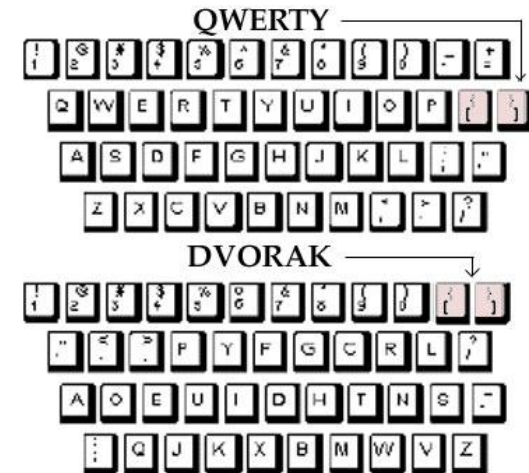
- Value of a product increases as the number of users grows (Economides, 1996; Katz and Shapiro, 1985).
- Scale implications: costs, volume, price.
- Market dominance implications.
- Proliferation of multi-sided platforms (Parker and Van Alstyne, 2005; Rochet and Tirole, 2003; Rysman, 2009).



- Path dependence (Liebowitz and Margolis, 1995; Arthur, 1990) – get big, fast.
- The Favoured One – first mover advantage implications.

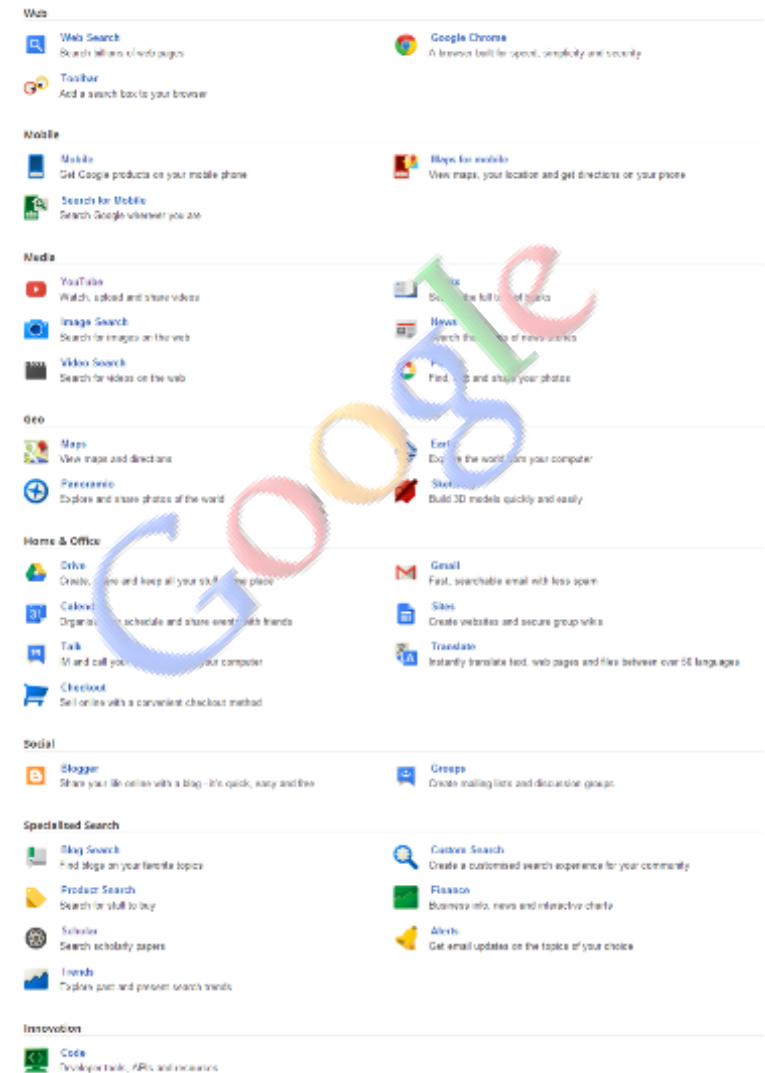
Network externalities

- The walled garden: lock-in effects and switching costs.



Complementarities and ecosystems

- Bundling of products and services provides more value than each product or service does on its own (Teece, 2000; Amit and Zott, 2001; Brandenburger and Nalebuff, 1996).



External networks

- Stable inter-organisational ties, formal or informal, that are strategically important (Dyer and Singh, 1998; Gulati et al., 2000).
- Examples: joint-ventures, long-term buyer-supplier partnership, alliances, open innovation/co-creation networks
- Customers and other stakeholders – big data implications.

The logo for Procter & Gamble (P&G), featuring the letters 'P&G' in a bold, blue, serif font.The logo for CAMD (Critical Path Institute), featuring a stylized blue and yellow curved shape to the left of the text 'CAMD' in blue, with 'CRITICAL PATH INSTITUTE' in smaller blue text below it.The logos for Nokia and Microsoft. The Nokia logo is in blue, and the Microsoft logo is the four-pane Windows logo in orange, blue, green, and yellow. Below them is the Microsoft logo in black, italicized font.The logos for Qantas and Emirates. The Qantas logo is a red triangle with a white kangaroo silhouette and the word 'QANTAS' in black below it. The Emirates logo is the word 'Emirates' in red, with Arabic calligraphy above it.The logo for the Big Innovation Centre, featuring a red circle with a white dot inside, and the text 'BIG INNOVATION CENTRE' to its right.

Jackpots and deathtraps



- Market stranglehold
- Exponential profits
- Dominant technology and/or platforms
- Chartered path



- Fixation
- One-in-a-million chance
- Winner-takes-all



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Salient features

- Reduces costs for both firms and customers.
- Transactions may include planning, adapting, executing and monitoring (Williamson, 1983).
- Traditionally understood to be about choosing the most efficient form of 'governance' (Coase, 1937; Williamson, 1975).
- Digitisation enables cost savings (financial, time, effort, energy, opportunity costs) even for internalised operations (Dyer, 1997; Lucking-Reiley and Spulber, 2001).

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Jackpots and deathtraps



- Cost leadership
- Undercut prices
- Superior value to customer
- Bottom line enhancement
- Reinvestment



- Back-door/hidden costs
- Sow-and-reap reality

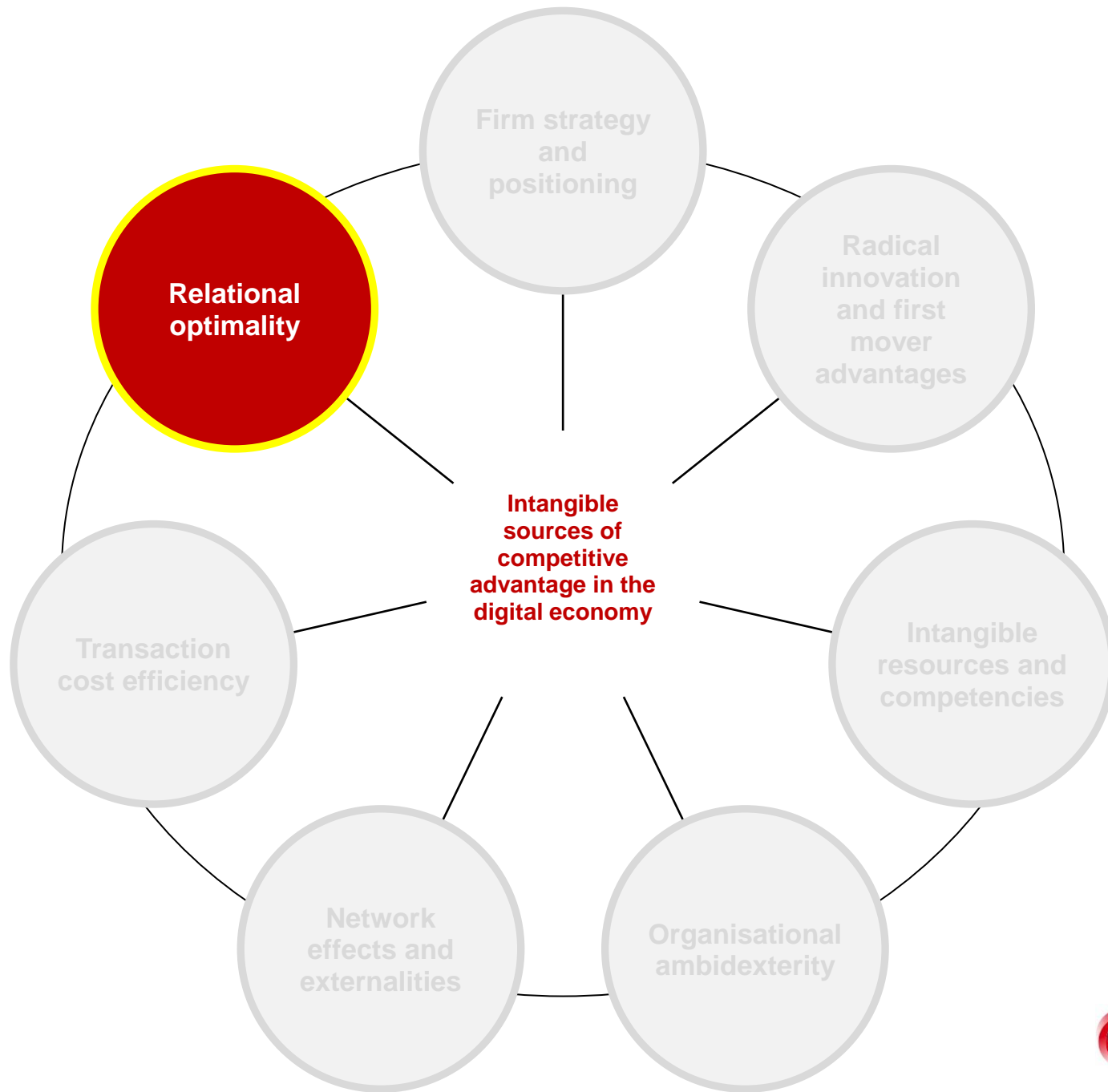


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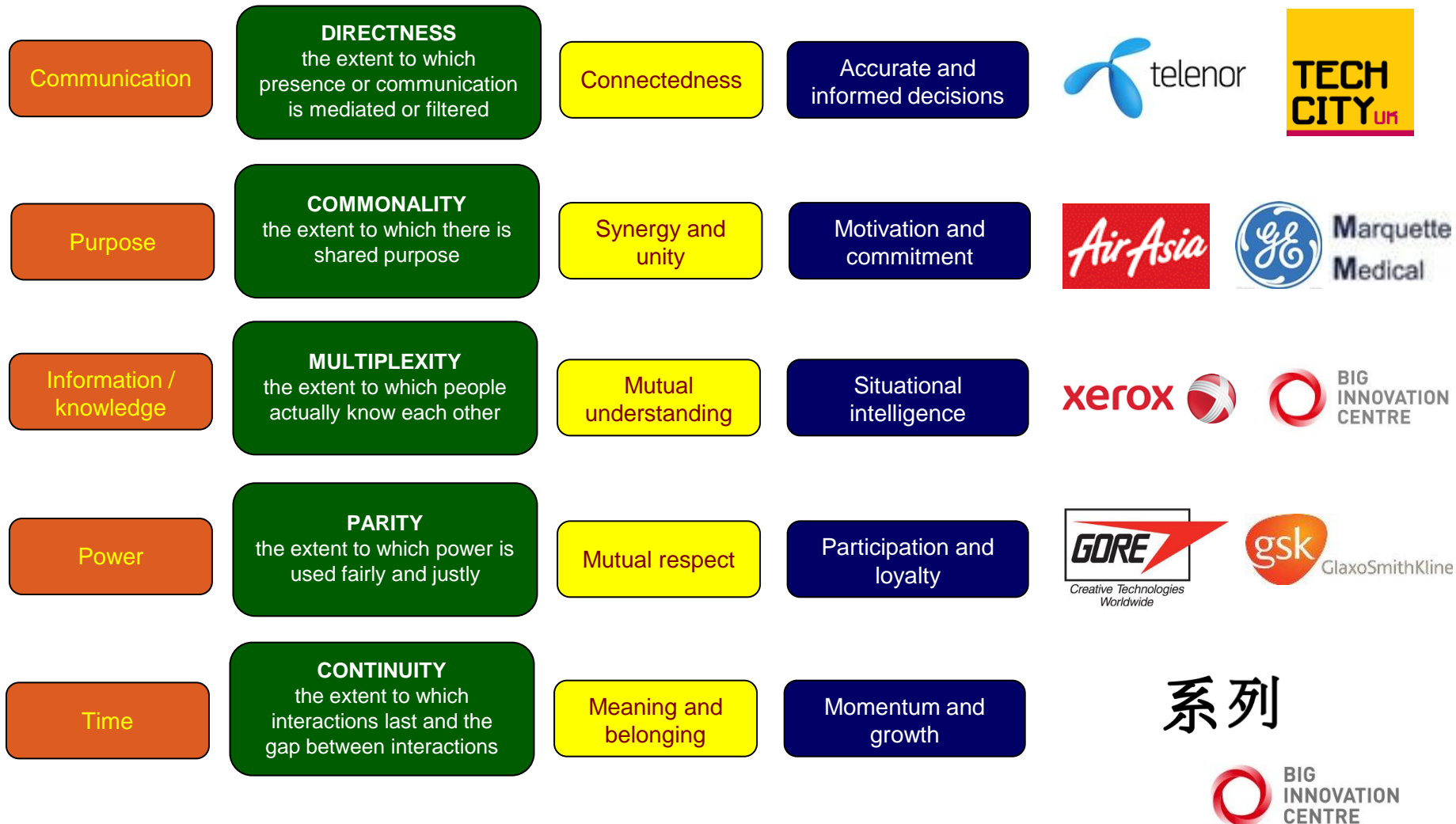


Salient features

- ‘Intangible of intangibles’ that hold many other intangibles together.
- Relationships within and between organisations.
- Organisational citizenship effects: trust, participation, cooperative behaviour, positive morale, altruism, willingness to go the extra mile (Albrecht and Hall, 1991; Gardner and Pierce, 1998).
- Organisational performance effects: cost reduction, improved revenues and profits, higher productivity, innovative ideas (Cannon and Homburg, 2001; Palmatier et al., 2007).
- Building social capital (Bourdieu, 1986; Putnam, 2000).
- Harnessing strength of weak ties (Granovetter, 1973, 1983).

Optimal relationships

- Derived from 'relational proximity' (Schluter and Lee, 1993, 2009).



Jackpots and deathtraps



- Positive organisational citizenship
- Positive organisational performance
- Effective networks
- Open innovation
- Who you know counts



- Soft issues are the hardest
- It's subjective – beauty is in the eye of the beholder
- The Palmerston principle
- Groupthink



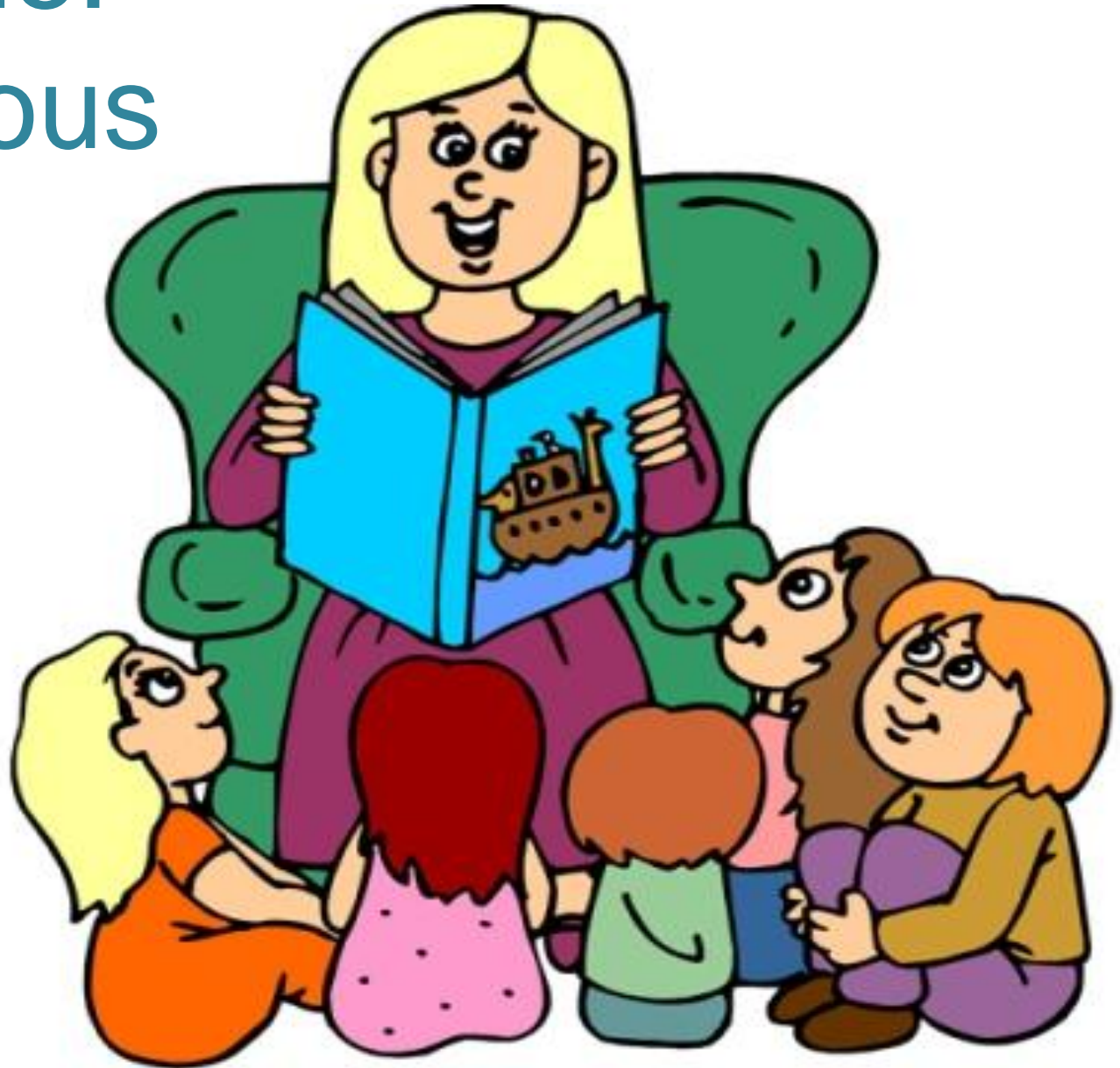
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Story time: The curious case of QoD





Bedding textile industry

- Very traditional
- No major innovation
- Focus on comfort and price



- Estd. 2000
- 5 employees
- Vamdrup, Denmark

We are not a textile company.

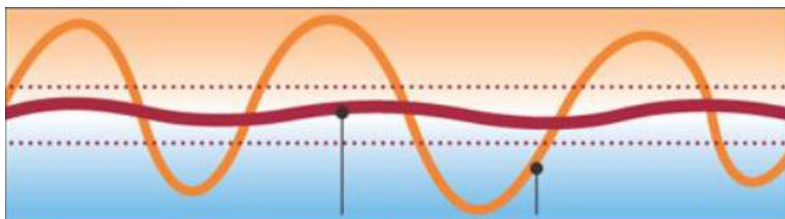
We are providers of *healthy sleep!*

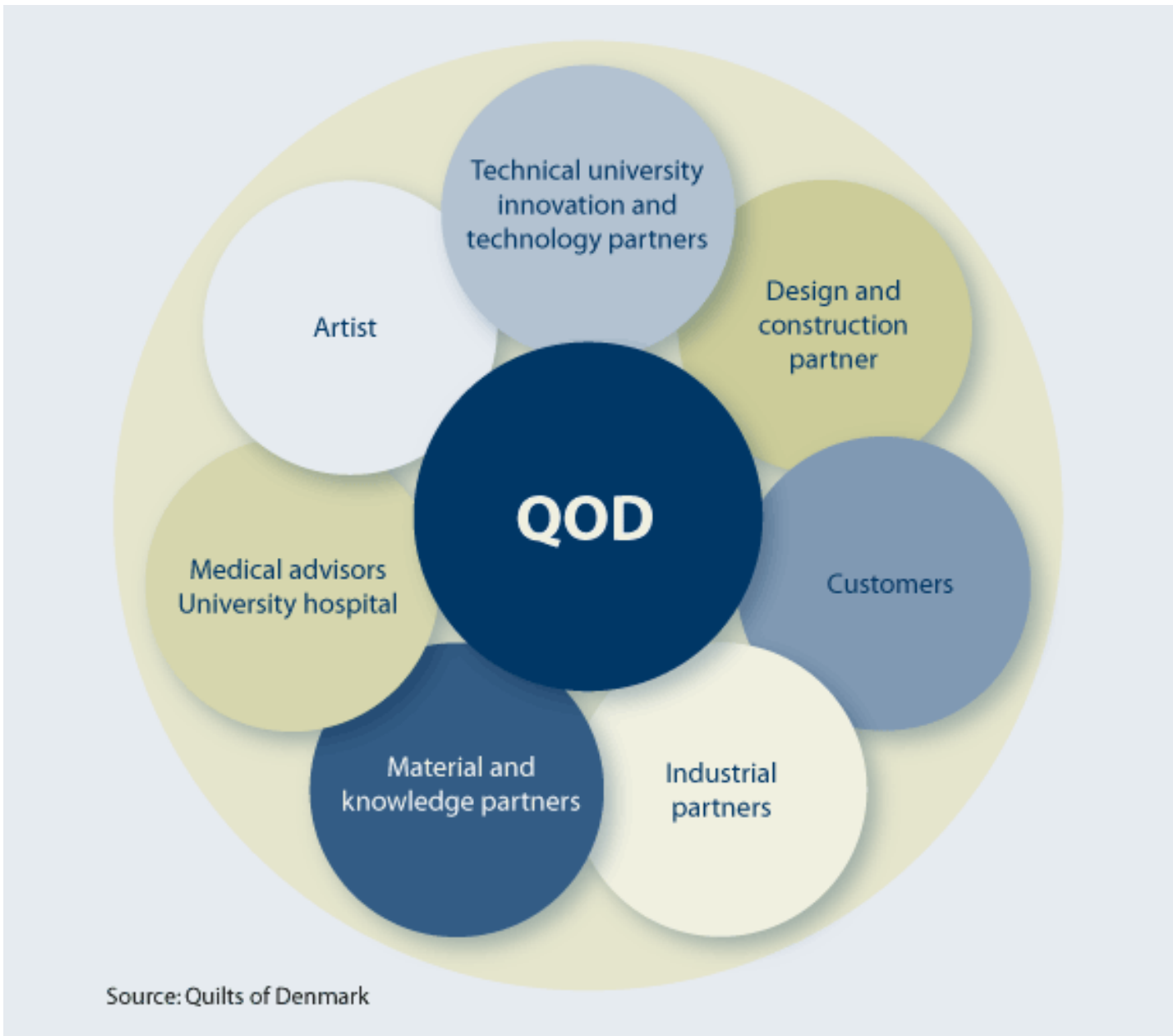
- Sleep scientists
- Danish Asthma & Allergy Association
- Physiotherapists



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-intelligent sleep

- More than 75 employees
- Profits more than €2.7m
- 35 countries
- Danish Innovation Cup

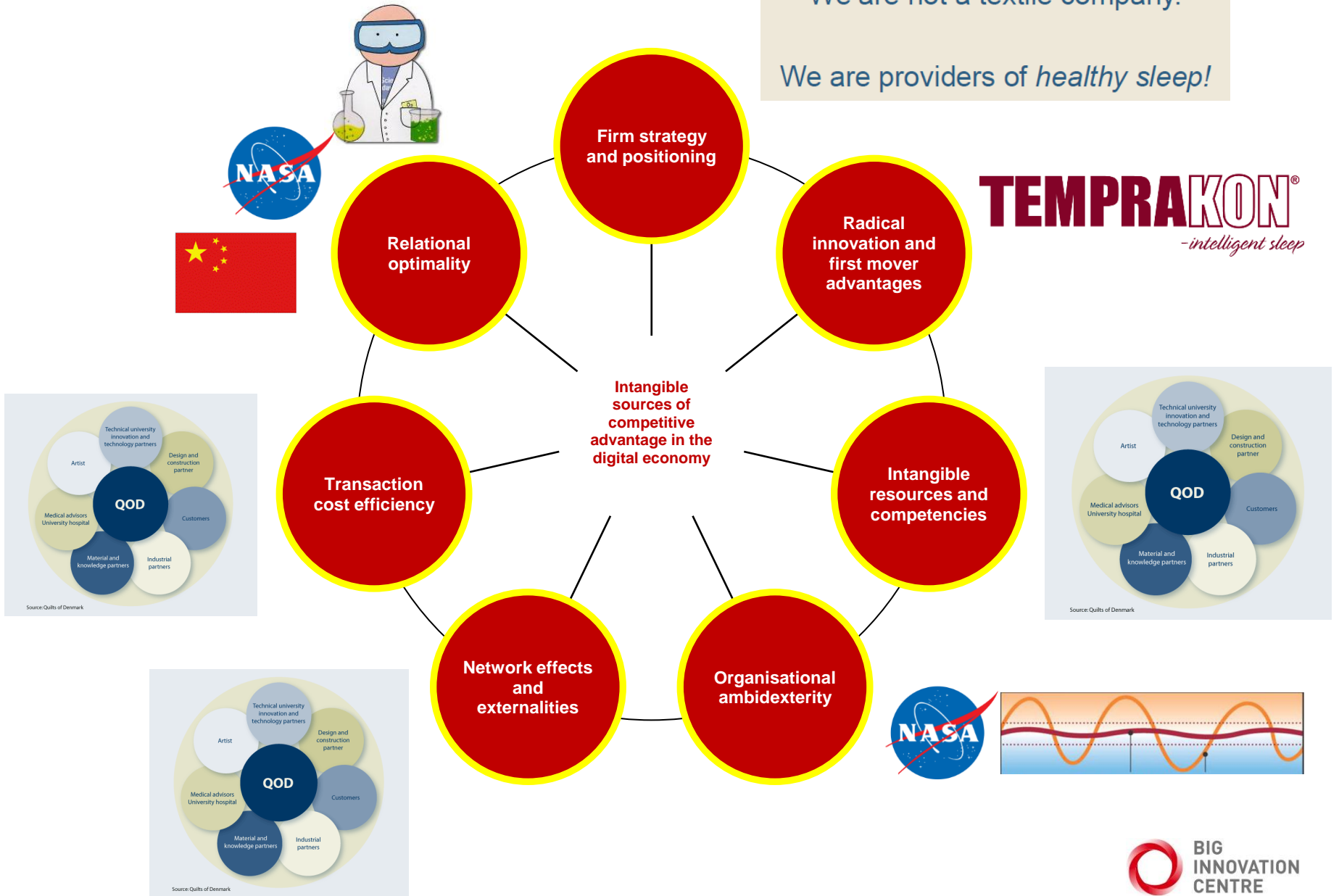




We are not a textile company.

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Implications and discussion

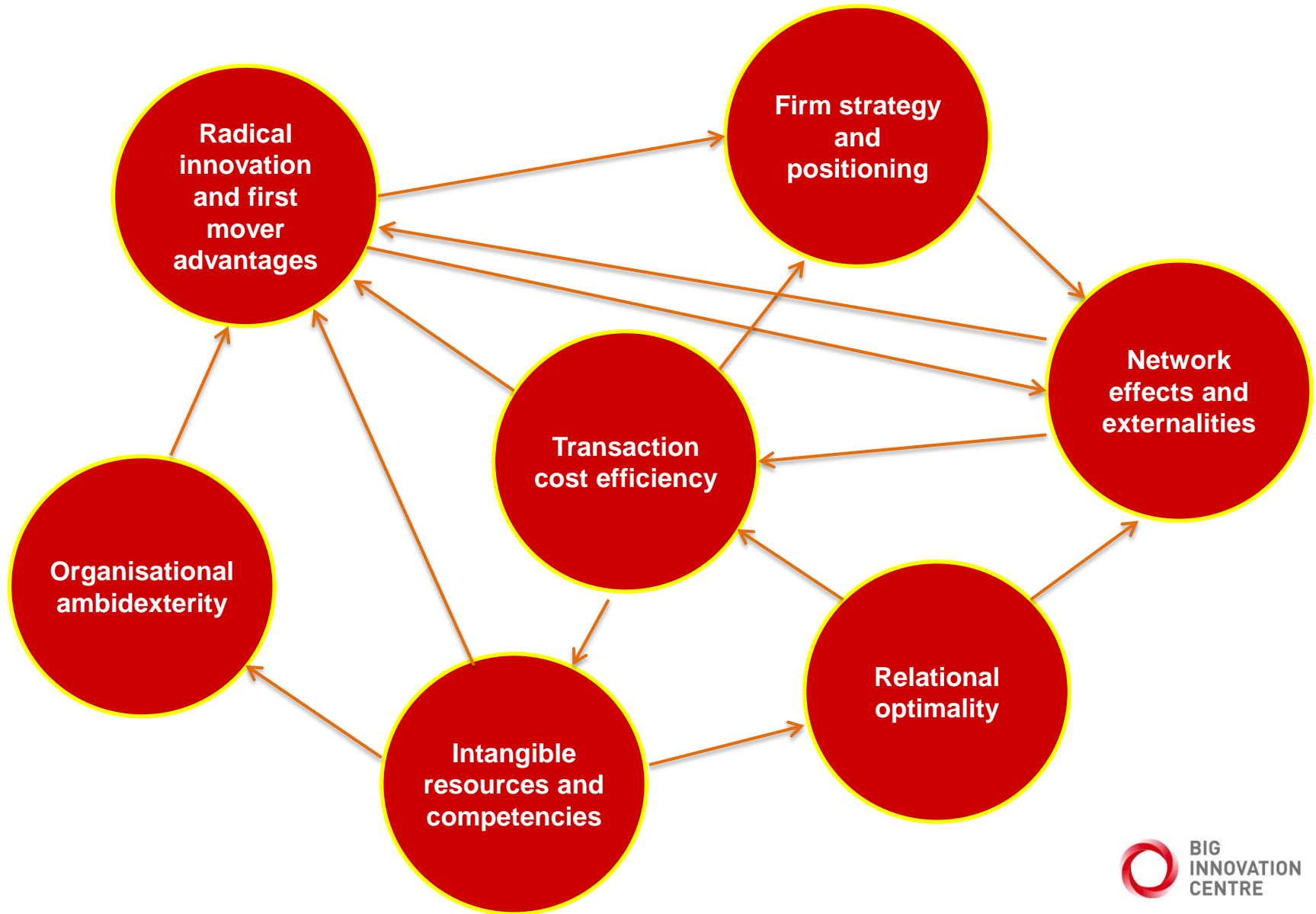


Implication for practice 1

Many are the paths to success

- The key is to harness the complementarities of the intangibles.
- No one-size-fits-all – different configurations suit different industries/sectors.
- Calls for an integrated view.

An integrated view of the intangibles

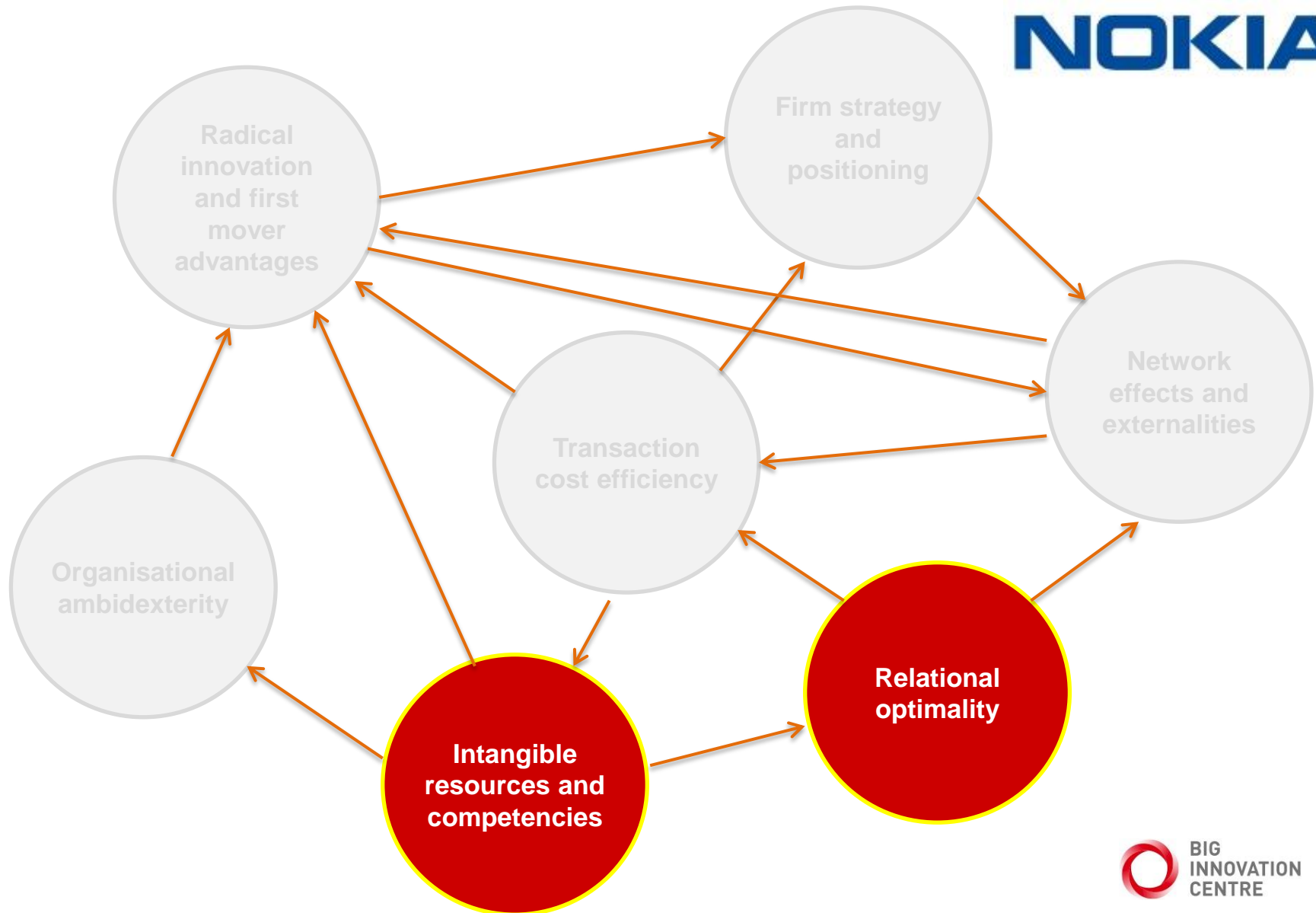


Implication for practice 2

A double-edged sword: many are the paths to failure

- Failure to harness one or several intangibles can lead to disastrous consequences.
- Interconnected risks particularly prevalent in digital economy.

Stuck in the web?



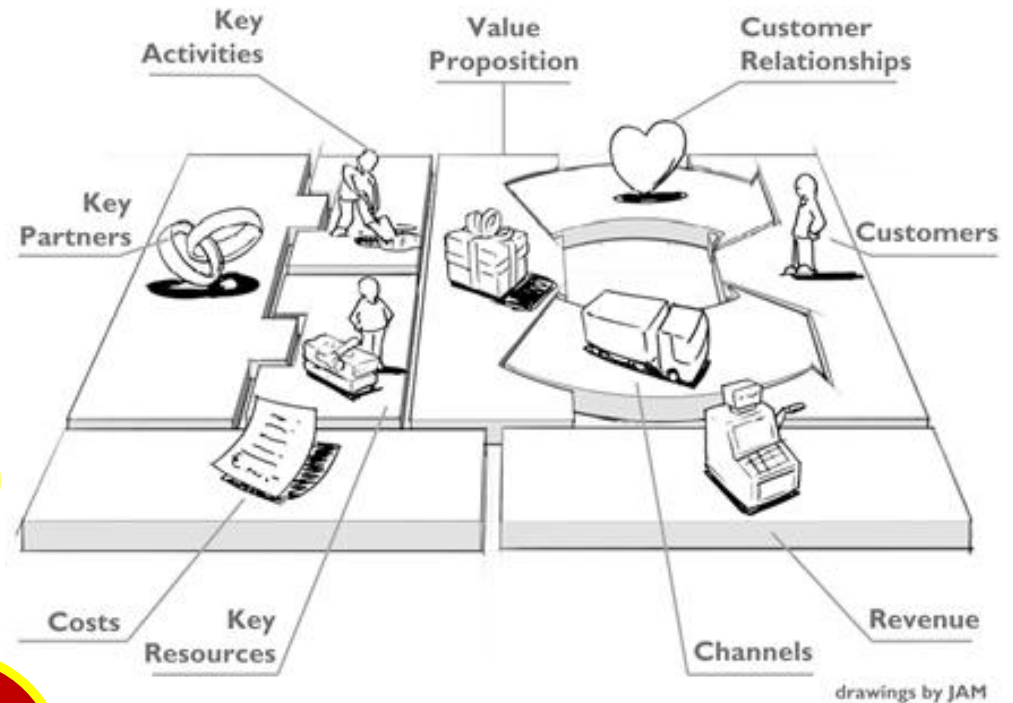
Implication for practice 3

Reinvention of the business model is necessary

- Easy imitation and shortening lifecycles of products and services (Christensen et al., 2002; Markides and Charitou, 2004).
- Making new technology/product/services appealing (Chesbrough and Rosenbloom, 2002).
- Market creation with or without pioneering technological innovation (Kim and Mauborgne, 1999, 2005).
- Business model innovation may be realised through the reconfiguration of the intangibles.



The intangibles and the Business Model Canvas



Reinvention is about endless tweaking

- Business models as models (Baden-Fuller and Morgan, 2010).
- Reality: trial-and-error, prototyping, tweaking.
- Which is why ambidexterity is crucial!



Implication for practice 4

Adaptation for practical projects

- Seven intangibles – ‘main platform’.
- Innovation strategy and incubation projects with BIC partners.

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logica

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Technology Strategy Board
Driving Innovation

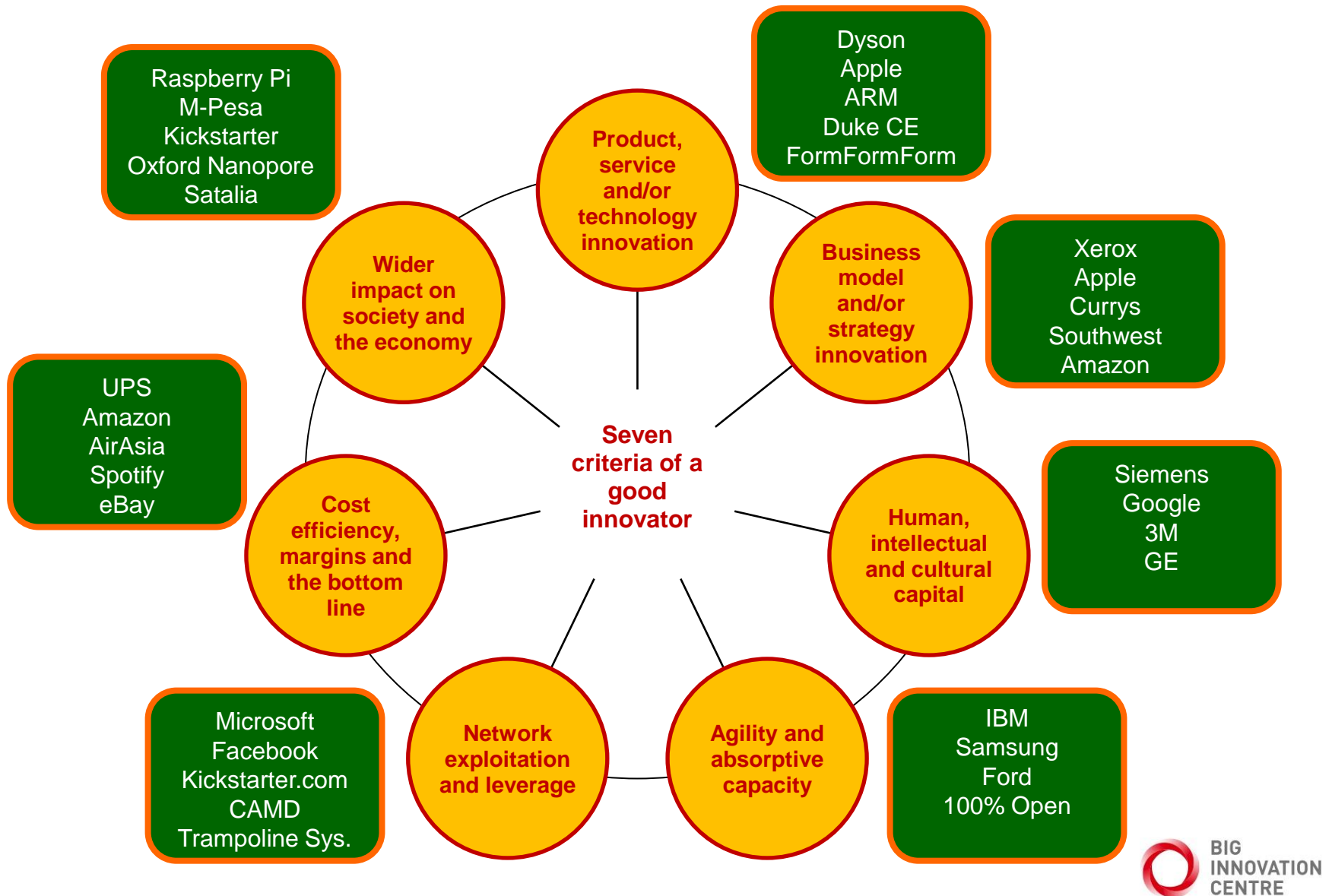
- The Innovators Column project.

theguardian

The Innovators Column



The Innovators Column



Implication for research 1

Towards a new taxonomy of business models themes in the digital economy

- Amit and Zott (2001) – value creation in e-business
- Theoretical perspectives: value chain analysis, Schumpeterian innovation, resource-based view, strategic networks, transaction cost economics.
- Four resultant business model themes (sources of value creation): novelty, lock-in, complementarities, efficiency.

Implication for research 2

Business models and strategy: value creation, delivery and capture through activity system

- Zott et al., (2011)
 - e-business: typologies
 - strategy and performance: activities
 - innovation and tech management: monetisation
- What activities, based on various configurations of the intangible sources, are important for business models in which sectors?
- Or is there a new paradigm for value (co-)creation? (Ng, 2013)

Implication for research 3

Empirically testing greenfield areas such as 'relational optimality'

- To determine the validity and reliability of the constructs.
- To establish a collective link to certain dependent variables; e.g. financial performance, productivity.
- To develop new theory.

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Thank you

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