BUSINESS NETWORKS INFLUENCE ON FINANCIAL RISK TOLERANCE ATTITUTES (Work-in-progress)

RESEARCH AREA AND PROBLEM

Speculative capital markets are frequently characterized by actors possessing not simply specific industry sector knowledge, but probable higher risk tolerances, or a greater willingness to accept risk and invest, in contrast to other more risk-adverse investors (Hirshleifer 1975). With financial risk tolerances proving an important driver of individual investment, and collective risk-taking behaviors and perceptions, we find limited literature exploring the influence of actors' collective interactions, connected relationships, or contagion effects of informal knowledge and information sharing, in shaping individual and collective groups' risk tolerances attitude within a financial ecosystem.

Our research objective therefore seeks to explore the influence of individuals interactions and collective relationships in shaping financial risk tolerance attitudes, and whether associations or connections to a collective group of perceived higher financial risk tolerances, as characterised within higher risk speculative markets, is perceived to support mutually beneficial, cooperative advantages when undertaking a higher risk capital raising (Fainshmidt & Frazier 2017)

We address this objective by incorporating business network frameworks, to explore actors networking activities and interactions within business networks. Three indicatively higher risk tolerant networks are highlighted within the Western Australian ('WA ') capital raising sector, where network concepts were used to investigate connected relationships, current expectation, previous experiences and socially embedded structural elements (Makkonen, Aarikka-Stenroos & Olkkonen 2012). This paper will describe specific activities and behaviours held by network members, enabling an environmental climate of common understanding, trust, and knowledge transmission, which influence common networks norms guiding legitimacy of risk tolerance appetites (Huemer 2014; Huemer, Boström & Felzensztein 2009).

By focusing on financial risk tolerances within an indicative higher risk capital raising environment, this paper contributes to IMP business network research by applying network literature in the context of the often separate but parallel, monetary resource business networks. We further offer suggestions on why some business networks might be perceived as sought after for their apparent cooperative advantage, when seeking access to speculative capital raising (Fainshmidt & Frazier 2017). Findings will highlight the importance of management recognizing business networks with complementary risk tolerances to optimize capital raising success.

USE OF THEORY (BEHAVIOURAL FINANCE AND IMP)

Financial Risk Tolerances within Business Networks

Investors frequently use less-than efficient cognitive shortcuts, or factors other than financial data or models of optimum portfolio decision making, to simplify complex risk assessment, when making investment decisions, (Grable 2008; Grable, Lytton & O'Neill 2004).

Given financial risk tolerance's influence on investment decisions, we therefore focus this study on behavioral finance's concept of financial risk tolerances, which are considered an elastic and complex psychological trait, or a cognitive shortcut frequently influenced by individual biases, collective heuristics, and other predisposing factors, and defined as the '*willingness to engage in behaviors in which the outcome remains uncertain with the possibility of an identifiable negative outcome*", (Grable, Lytton & O'Neill 2004 p.142; Irwin 1993 p. 11).

The mechanics of risk sharing, assessment and investment are often a driving force in creating connections between individuals and the organisations they represent (Allen & Babus 2008). Individuals in similar groups frequently exhibit similar heuristics and biases during assessments of risk (Sinclair 2000), and within business environments, tacit knowledge is often shared through actors interactions, supporting development of shared rules, norms, and may modify routines, as part of organisational learning processes within business networks (Hakansson & Johanson 2001). Given the inherently human social interactions capable of modifying actor perceptions and behaviours, a business network approach is considered useful to capture social externalities shaping financial risk tolerant attitudes within business networks, focusing on capital markets. Network frameworks are useful to address variable risk perception within with a singerly regulated environment, individual interactions and collective advocating to share views swaying systemic risk perception, and factors of social proximity influencing mutually desirable outcomes (Allen & Babus 2008).

Within IMP literature, business networks are viewed as essentially simple networks, where nodes are business units, firms (manufacturing or service firms) and the threads are the relationships between these companies, each heavy with context, knowledge and resources, formed through time and interaction (Hakansson & Ford 2002). Business networks can operate within a wider, complex, systematic web of independent networks, joined through multiple connected relationships (Blankenburg-Holm, Eriksson & Johanson 1999), but the core remains the primarily social interactions, and communal relationships of network members, shaping shared understanding of the implicit or explicit rules, regulations or norms that guide actors behaviours and business interactions (Mouzas & Henneberg 2015). We therefore use IMP business network concepts to descriptively explore the mechanics of knowledge transfer between actors within networks that support shared dependencies and the dynamic characteristics of a high financial risk tolerant network group.

Transmission of Knowledge and Norms within Networks

The ability of individuals and organizations to share knowledge across project boundaries is grounded in Granovetters (1973) foundational work into the strength of weak ties, outlining largely social ties between groups as a crucial bridge to disseminate information between networks groupings (Granovetter 1973). However more recent business networks literature, research focuses on sharing of knowledge within networks, by incorporating the role of cognition in *'network learning*' within the network, and its influence in co-ordination of activities which develop cognitive frameworks, used to interpret and understand complex information during decision making (Mattsson, Corsaro & Ramos 2015; Peters, Pressey & Johnston 2016 p.1). We are guided by Peters et al. (2016) research into network learnings within interfirm relationships, which investigates the contagion effects of social factors supporting transmission of knowledge mechanisms through trust, reputation, collective interactions sharing knowledge transmission and shaping visions (Peters, Pressey & Johnston 2016).

Welch and Wilkinson's (2002) research further supports the impact of cognition in shared meaning and creation of actor bonds, which iteratively influences perception and norms, shaping organizational process, and ultimately creating environmental climates with identifiable norms and practices of common network logic (Welch & Wilkinson 2002). Within higher risk markets, intermediaries and expert knowledge play a critical role in legitimising network processes and commonly accepted norms (Antonczyk & Salzmann 2012). As investments in early stage, higher risk opportunities, often provide less financial or operational information due to their early lifecycle stage, greater reliance is often placed on expert intermediates such as accounting, legal or other advisors who past experiences, reputation expert knowledge are relied upon to assess, perceive and manage risk (Antonczyk & Salzmann 2012). Interactions with all

members within the network are broadly embraced under the construct of networking activities, or '*network-orientated behaviours*' undertaken by individuals or firms who try to influence their position in relation to others within the business network, to capitalise on their relationships and increase firm performance by directly or indirectly gaining access to resources or knowledge held by other network members (Thornton, Henneberg & Naudé 2015 p.167).

In focusing on financial risk tolerances, we seek to predominately highlight actors activities involved in sharing of knowledge, adaption of commonly accepted norms, role of social proximity, and the importance intermediaries and local context play within the monetary business network context, which may influence an actor's risk appetite or perception within that network (Peters, Pressey & Johnston 2016).

Mutually Beneficial Cooperative Advantages

The final part of addressing our research objective uses Huemers (2014) research into control-trust interplays, where actors relationships provide opportunities to persuade others, and creation of mutually beneficial relationships supporting cooperative advantages emanating from that business network (Huemer 2014). Cooperative advantages arising from relationship dimensions within network studies, are similarly examined within competitive advantages of interconnected firms (Lavie 2006), or research into embeddedness within networks positively influencing competitive benefits for firms seeking finance i.e. greater ease obtaining bank loans/lower interest rates (Uzzi 1999).

Complex networks of shared interdependencies and cooperation between actors and their associated organisations' supporting mutually advantageous relationships or cooperative advantages within and between organizational network actors, is raised as closely related to concepts of competitive advantages (Huemer 2014; Huemer, Boström & Felzensztein 2009; Bengtsson & Kock 2000). However, while acknowledging actors actively undertake business networking activities as part of their strategic decision making to become more competitive, a paradox is created where 'co-operation' of actors within networks, with a view to access resources and capabilities within that network, can also consist of 'competition' due to conflicting interests or rivalries between actors direct relationship, or organisation's business network activities, with the aim of gaining relative advantage or changing network structures or processes (Ford & Hakansson 2013). Climates of trust are developed between organisational members and importantly underpin actors relationships, resulting in an organisation's social climates' notable impact on organisational members behaviours, attitudes, and directly impacting cooperative and competitive advantage (Fainshmidt & Frazier 2017).

Ford and Harkansson (2013) note there is limited IMP research into concepts of competition within business landscapes literature, and so our research considers the cooperative advantages provided by interactions, in the context of a predominately higher risk tolerant business network (Ford & Hakansson 2013). This study will address our research question of the influence of connections to a business network on financial risk tolerance attitudes, by investigation of the activities within a higher financial risk business network and, the notion of whether relative cooperative advantages which may be accessed depending on the risk tolerance capabilities of the business network to which the firm is connected, when seeking speculative capital opportunities (Lakhal et al. 1999).

DESCRIPTION OF STUDY AND METHODOLOGY

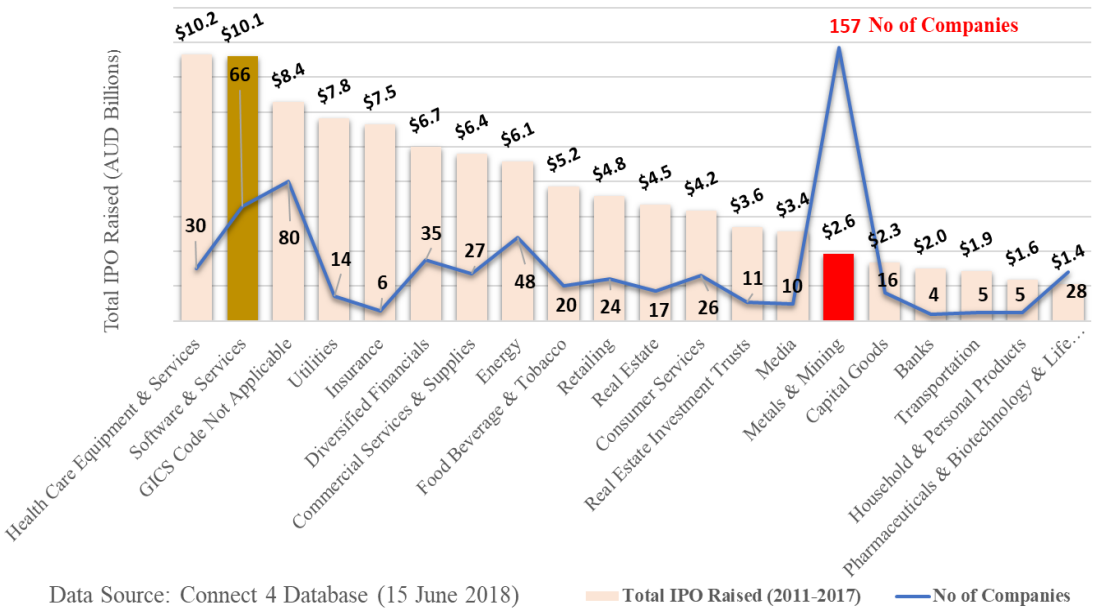
Our data focus is a perceived higher financial risk tolerance capital raising business network indicatively identified within Western Australia ('WA').

An examination of the top 20 industry sectors undertaking IPO capital raising, on the ASX within Australia between 2011 and 2017, highlighted a concentration of perceived higher risk, junior

exploratory mining companies (Figure 1). Further investigation found WA undertook a disproportionally large 67% of these higher risk, micro-cap mining IPO's, resulting in its local economy being strongly dominated by listed junior miner's, often at higher risk, early stages of development and frequently without mining operations in WA or indeed Australia.

Exploratory interviews highlighted these firms strategically choose to headquarter in Australia, primarily to access ASX's lower capital listing requirements (Satchwell & Redden 2016), and particularly targeted WA to gain locational proximity to business networks with specific industry knowledge and apparent higher risk tolerances, perceived to facilitate more successful, higher risk, early stage, micro-cap, speculative capital raising. During periods of mining downturn, fewer mining IPO's were undertaken (i.e. zero in 2015) and WA's capital raising sector instead raised IPO capital for early stage, software industry sector, indicating cross-disciplinary expertise in another purportedly higher risk industry sector (Satchwell & Redden 2016).

Figure 1: Australian IPO Raised (Top 20 Industry Sector: 2011-2017)



It is therefore proposed to explore the proposition that access to business networks with mutually beneficial cooperative advantages in the form of perceived higher financial risk tolerances, might be a contributing factor influencing the concentration of indicatively higher risk IPO capital raisings being undertaken in WA s, rather than industry familiarity with the mining sector.

Higher risk IPO capital raisings within WA business networks (as bounded below) therefore becomes the research data focus to considering the influence of business networks on financial risk tolerances.

3.1 Mining and Tech Industry Sectors

A review of all 104 ASX metals and mining ('mining) industry sector companies who completed an IPO within WA (between 2011 and 2017), found three distinct groups comprising:

a) Mining companies with mining operations in Australia,
b) Mining companies with mining operation not in Australia, and
c) Mining companies who initially raised exploratory mining capital but have since changed industry sector to predominately tech-based industry sectors (table 2).

Given evidence of group c) within WA, 'Software and Services' industry sectors' dominance within the Australian capital raising sector (Figure 1), and the evidentiary transfer of WA's capital

raising capabilities changing to the software sector during mining downturns, WA's software IPO sector has been included as a software business network sector to undertake a multi-business network layer, multi-actor methodological approach across indicatively higher risk tolerant WA business sectors and actor groups, as detailed in Table 1 (Dubois & Gadde 2002; Makkonen, Aarikka-Stenroos & Olkkonen 2012).

As legally documented agreements and advice provided by service providers facilitate '*inter-cognitive representations'*, and are considered critical to shared understandings of risk during capital raising (Mouzas & Henneberg 2015 p.61), interview data will be sought across executive, directors and services provider layers to further replicate and triangulate key concepts, providing a multilayer/multi-actor methodological approach, across business network sectors and actors perception as seen in Table 1 (Makkonen, Aarikka-Stenroos & Olkkonen 2012).

Table 1: Multi Business Network/Multi Actor Data Collection Table

IPO's undertaken in WA (2011-2018)				**Multi-layer Actor Group (Proposed Number of Interviews)**		
Business Network Groups	**GCIS***	**Industry Sector**	**No of IPO's**	**Directors**	**Exec**	**Service Providers**
	Metals and Mining	• Operations in Australia	60	5	5	4 Legal Advisors 4 Accountants 4 Brokers
		• Operations not in Australia	53	5	5	
	Software ("Tech")	• Software/technology and Hardware	25	5	5	
		• Original mining IPO, changed industry sector	18			
Total IPO's			156			
Total Interviews Undertaken				15	15	12

**GCIS Industry Groups used by the Australian Stock Exchange*

When exploring emerging theory, elite interview methodology is a suitable methodology used within network studies to capture rich descriptions and contextual aspects, (Mandják, Simon & Szalkai 2011; Eisenhardt 1989). Semi-structured, open ended questions are proposed to capture perceived attitudes, behaviours and activities of actors within each network sector.

Data will by systemically combined, relying on replication logic through multiple interviews, with the objective to match theory and practice (Dubois & Gadde 2002). Interviews will be transcribed and coded using the NVivo.

Theoretical Implications

This study is a work in progress with opportunities still emerging as interviews progress. Network research provides limited insight into monetary resource layers, and adaptive influences arising from collective sharing of knowledge shaping financial risk tolerance attitudes, or whether connections to groups of similar risk tolerance traits impact business norms or behaviours of firms (Grable, Lytton & O'Neill 2004; Hirshleifer 2001). So, with current network studies primarily focused on networks between customer and suppliers ('actors') under the Actor-Resource-Activity ('ARA' model), we contribute to network discussions identifying a

research gap in considering the money distribution dimension, as a separate, but parallel resource layer (Håkansson & Olsen 2015). Often subject to separate, social, regulatory knowledge and specialised activities of actors, our incorporation of financial risk tolerances to business network studies, assists explanations of how relationship interactions between actors impact financial risk tolerances which guide processes, network norms, behaviours and indicate mutually beneficial cooperative advantages when seeking access to higher risk, speculative capital.

We further contribute to emerging research on the role cognition plays in network learning specifically within the capital raising, monetary dimension, providing insight into interactive activities of network participants, that support an environmental climate within the network of reputational trust. Current finding support a proposition of high degree of reliance on more informal information sources of trust of actors knowledge within the connected business network when assessing financial risk, evidencing reliance on actors past risk perceptions and reputations

Implications for management highlight the strategic importance for managers to scrutinize capabilities of the business network, and in this case, risk tolerances of within networks to identify cooperative and simultaneously, competitive advantages of business networks when undertaking speculative capital raising (Bengtsson & Kock 2000; Bengtsson & Kock 1999; Ford & Hakansson 2013).

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