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Strategic thinking: the core of investment decision-making in Fund-of-Fund (FoF)

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ABSTRACT

This study investigates FoF managers' investment decision-making process and the most important fund/fund manager attributes perceived by FoF managers. We find that FoF managers apply strategic thinking and actively seek out fund managers who also possess strategic thinking competencies. Our findings show that the determinants of fund performance identified in the existing literature (e.g. fund age and education background) play a complementary role at fund-level investment decision, whereas selecting fund managers with strategic thinking competencies (e.g. accumulated working experience, individual cognitive ability, personality, core value and personal beliefs) dominates the qualitative criteria in FoF managers' thought processes. This study provides new empirical evidence from FoF managers, which sheds light on the challenges FoF managers face in the fund-level investment decisions. The comprehensive thematic framework of this study contributes to the investment decision-making literature and the findings of the study will be useful to practitioners while making investment decisions.

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Fund-of-Fund (FoF); strategic thinking; fund managers; decision-making process; strategic thinking competencies

1. Introduction

Fund-of-fund (FoF hereafter) managers need to choose among a wide variety of funds or fund managers when constructing their portfolios. Managers may choose top-performing funds from league tables based on historical returns, however this approach may result in effectively identical portfolios and lead to the performance of the fund that close to the benchmark which raises an important question that has been largely ignored in the previous literature: Do FoF managers adopt a rational strategy in the fund or fund manager selection process to maintain a competitive advantage? The actual behaviour of fund managers has been largely overlooked in the finance literature (Tuckett and Taffler 2012), addressing this issue is important for academicians, practitioners and regulators. Empirical evidence shows that institutional investor's behaviours are shaped collectively by internal and external forces, namely, psychological, sociological and biological factors (Ahmad, Ibrahim, and Tuyon 2017).

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Behavioural finance acknowledges that individual thinking, behaviour and uncertain investment decision-making are dynamic and complex. It also recognizes that behavioural biases are present in the fund management industry (Cuthbertson, Nitzsche, and O'Sullivan 2016). According to Holland (2016), a strategic balance exists in fund managers' investment decision-making process to deal with the issues of complexity, risk, soft information and adverse incentives. Holland (2016) argues that portfolio performance is determined by interrelated clusters of system-based factors rather than separate variables such as fund size, style, and managerial characteristics. These system-based factors comprise the organisation process, individual qualities, team conditions and process with interaction and integration in the organisation in a dynamic and coherent manner (Holland 2016).

Bonn (2001) argues that strategic thinking is crucial to maintaining a competitive edge, thus the lack of strategic thinking is argued to be one of the most common problems for top managers. Kaufman and Herman (1991) define strategic thinking as an integrated approach to dealing with the firm as a holistic system that incorporates procedures, policy, culture, individual working, teams and leaders together. The strategic thinking framework integrates a micro-level focus on individuals and teams with a macro-level emphasis on organizations and their context. This holistic approach carefully accounts for the complex interplay and mutual influence that shape the dynamic interaction between these two levels (Bonn 2005; Holland 2016). Additionally, strategic thinking is recognized as an individual activity influenced by the context within which it occurs (Goldman, Schlumpf, and Scott 2017). It is a vital skill for fund managers at different levels in organisations, as it enables them to anticipate and respond to the current turbulent markets and future uncertainties (Moon 2013). Bernhut (2009) further contend that nurturing sound management practices and rigorous strategic thinking are the most important roles in maintaining competitive advantage and sustaining growth. Empirical evidence indeed confirms that strategic thinking has a positive impact on organisational performance (Alatailat, Elrehail, and Emeagwali 2019; Goldfarb and Yang 2009; Moon 2013).

Therefore, we posit that strategic thinking could play a vital part in giving a comparative advantage to FoF managers' fund portfolios at individual level. Therefore, it is crucial to uncover how FoF managers employ strategic thinking in their decision-making processes and to highlight the importance of strategic competencies. Using questionnaires and semi-structured interviews of FoF managers in China, we explore the process of FoF manager's portfolio construction processes, assess the role of strategic thinking and investigate the role of fund-specific or managerial attributes on managers' decision-making process. The aim of this study is twofold. First, we assess and present the application of strategic thinking practices by FoF managers. Relying on the theoretical lens of strategic thinking, we focus on the decision-making process of FoF managers in constructing fund portfolios from the determinants of fund managers 'suitability'. Second, we compare and contrast the key attributes contributing to fund performance identified in previous literature (X. Huang and Shi 2013) with the interviews and questionnaire responses supplied by FoF managers.

The ensuing research questions are as follows:

- (1) How do FoF managers apply strategic thinking in the investment decision-making process?

- (2) What are the most important factors or attributes that fund of funds (FoF) managers deem crucial when selecting the funds?
- (3) What is the source of information FoF managers use when making an investment decision?

Previous studies have investigated the appropriate FoF construction process required to achieve the expected return (Harris and Mazibas 2010, 2013; Subbiah and Fabozzi 2016), whereas studies explaining the fund selection process preceding the construction stage using a qualitative approach are rare. Amenc et al. (2004) argue that quantitative analysis may not play an essential role during the decision-making process and the final decision. This is because quantitative indicators are often used as instrumental in screening and shortlisting funds, which are subject to additional due diligence. Unlike previous studies that have largely focused on quantitative analysis (e.g. Harris and Mazibas 2010, 2013; Subbiah and Fabozzi 2016), this study adopts a qualitative approach. It examines processes, perceptions, behaviour and constructions from the inside rather than observing them second hand and from afar (Parker 2014). A direct survey of institutional investors provides the best and real measures of their behaviours (Frank 2007), we provide empirical evidence from the questionnaire survey and interviews to unveil the predominant factors influencing the FoF portfolio construction process. Furthermore, we develop a comprehensive thematic framework to illustrate this process and examine the strategic aspects of fund selection. This study also explores the gap between practitioner and academic perceptions of the factors deemed important in fund selection. Our thematic framework provides clear guidelines to assist practitioners in making informative investment decisions.

The remainder of this study proceeds as follows: the next section reviews the relevant literature on strategic thinking and decision-making. Section three outlines the methodology of the study. Section four presents our findings using the thematic framework. Section five provides discussions, concluding remarks and the limitations of this study.

2. Literature review

2.1. *Investment decision-making process*

Previous literature on fund management explores the dynamic nature of the investment decision-making process in two ways: 1, the routine investment process and 2, the process of sense making and interpretation (Holland 2016). Holland (2016) claimed that fund managers used 'hard' and quantitative information created during screening situations in the routine investment processes to evaluate alternatives, then used soft information and employed subjective analysis to justify the behaviours and emotions, which is called 'sensing making'.

FoF managers employ relevant quantitative information about fund-specific attributes and some managerial attributes on fund performance in the initial screening process. According to Papadakis, Lioukas, and Chambers (1998), decision-specific characteristics have the most significant influence on investment decision-making processes. This finding was made after investigating the role of management factors, contextual factors, and decision-specific characteristics on the actual decision-making processes. Therefore, it is

important to review the fund performance-related factors including fund-specific aspects and managers' aspects. Empirical evidence suggests that fund-specific characteristics such as the size of the fund, management fee and age of the fund have a significant influence on fund performance (J. Chen et al. 2004; Indro et al. 1999; Ippolito 1989; Mansor, Bhatti, and Ariff 2015). Several studies in the mutual fund literature have investigated the effects of mutual fund managers' characteristics and skills on their portfolio performance (Bleaney and Smith 2010; R. Chen et al. 2018). Demographic forces have been established as important determinants for individual investment decisions in behavioural finance literature (Ahmad, Ibrahim, and Tuyon 2017). Managerial characteristics such as education, age and work experience of managers also explain fund performance (Chevalier and Ellison 1999; Golec 1996; Gottesman and Morey 2006; X. Huang and Shi 2013).

Brunel (2006) introduces a common method in FoF management to achieve superior performance. The first is to identify the underlying best managers and then focus on selecting strategies to achieve the required level of returns. A body of literature suggests mutual fund managers managed stocks perform better than those not managed by professionals (H. L. Chen, Jegadeesh, and Wermers 2000; Kacperczyk, Sialm, and Zheng 2008). Evidence suggests that the outstanding performance is mainly due to fund managers' experience and skills, including investing locally (Coval and Moskowitz 2001), industry focus (Kacperczyk, Sialm, and Zheng 2008), stock selection (Daniel et al. 1997) and market timing (Kacperczyk, Nieuwerburgh, and Veldkamp 2014). Stock selection or stock picking places active bets on individual stocks (e.g. selecting under-priced stocks). Market timing involves dynamic betting on broad economic factors, such as overweighting particular sectors of the economy. Stock selection is a bottom-up approach, requiring thorough research on individual firms' business models and the value of their stock. Alternatively, market timing is a top-down approach to portfolio construction (Holland 2006). Managers engaging in market timing presumably have a superior ability to process macroeconomic data to produce accurate forecasting. These two kinds of value-adding activities require different skill sets, and it is highly plausible that some fund managers excel in one skill more than the other.

Some studies compare a particular manager's performance with that of a benchmark index fund (Barker et al. 2012). Such investigations assume that the risk level of the portfolio under consideration is stationary through time, and they exclusively concentrate on a fund manager's security selection skills or lack thereof. One weakness of the above approach is that it fails to separate the skills of a fund manager from the quality of the information he/she possesses (Lee and Rahman 1990). Fund managers combined private information searching with public sources to create a knowledge advantage within fund management.

Whilst another strand of the literature suggests that a manager's subjective judgement plays an important role in buying and selling activities (Jin and Taffler 2016), which indicates that mutual fund managers may rely on subjective judgment to shape their decisions, rather than solely quantitative or research-based methods. In particular, over 70% of the respondents indicate that their decisions are formed from experience, trial and error, and advice from past mentors. If we only focus on the market-timing and characteristic-timing dimensions in overall mutual fund performance, we may overlook the subjective judgement skills accumulated from experience and errors (Jin and Taffler 2016).

The fund manager ‘weighed’ their objective and subjective views in an informed manner and reflected on these differing views, Holland (2016) explained that the latter reflection refers to a form of ‘metacognition’ that individuals and teams demonstrated capabilities to assess their knowledge and create knowledge advantages. Assessing and sense-making private and qualitative information of fund managers is the most suitable approach to investigate human capital because of their predictive abilities (Alatailat, Elrehail, and Emeagwali 2019). Therefore, FoF managers’ investment decision-making involves fund managers as human capital and fund portfolio as financial capital. Human capital is the stock of knowledge, habits, and social and personality attributes embodied in an individual’s ability to produce economic value.

2.2. Strategic thinking and strategic competencies in the investment decision-making process

Considering the dynamic, creative and integrated systematic properties of the investment decision-making process, strategic thinking is embedded as a key element. Holland (2016) states that the investment decision-making process in fund portfolio management is a dynamic process involving structured routines and sense-making at the level of fund managers and teams. In addition, Holland (2016) highlights creativity features including creative organisational resources, creative elements added by encouraging informal meetings, and creative activities (eg. brainstorming) in immediate and ongoing investment decision processes. Bonn (2005) defines strategic thinking as a way of solving strategic problems that combines a rational approach with creative and divergent thought processes. Strategic thinking focuses on synthesising experiences, intuition and creativity into novel strategies. Moon (2013) extends Bonn’s definition by summarising four key elements of strategic thinking including systematic thinking, creative thinking, vision-driven thinking, and market-oriented thinking. Senge (1990) points out that systematic thinking considers the organisation a holistic system that is affected by both internal and external factors. Holland (2016) makes a similar point that the consequences of decision-making are driven by the interaction and integration of system-based factors rather than separate internal variables, such as fund size, style and managerial characteristics. These system-based factors comprise organisation processes, individual qualities, team conditions and processes. Reinforced by Bonn (2005), the strategic thinking framework combines the micro level of focus on individuals and teams and the macro level of focus on organisations and context, with the interaction and influence between these two levels. It involves the influence of individual characteristics and actions on the organisational context and the influence of the organisational context on individual thinking and behaviour.

While supportive organisational structures and processes are prerequisites to promote the emergence of appropriate individual characteristics associated with strategic thinking, individual strategic thinkers could then create values for the organisation via decision-making. Bonn (2005) proposes three levels of strategic thinking including the characteristics of an individual strategic thinker, the dynamic interactions that take place in the organisation and the organisational context. Holland, (2016) overviews the investment decision-making process with particular emphasis on the research of dynamic interactions of attributed factors and

organisational contextual resources. He confirms the strategic balance among these organisational factors is important to lead to the outperformance of fund manager.

Regarding the impact of individual characteristics on decision-making, Holland (2016) argues that psychological traits, states and behavioural errors (such as overconfidence and mistaken risk-taking) at the level of individuals in teams managing specific funds can be moderated by the degree of control from 'top down' investment processes and by organisational factors or properties such as firm-wide knowledge, organisational investment policy. In addition, from a psychological perspective, price anomalies can often arise from participants' moods, emotions and feelings in financial markets. Lucey and Dowling (2005) point out that 'mood misattribution' can occur, whereby current, transient factors that are not related to the decision can affect mood, and this can lead to judgments that depart from those expected from fully rational decision-makers.

It has been well known that the decision-making processes are influenced by the manager's prior knowledge and experience, the organisational context in which they are embedded and the nature of the environment itself (Mitchell, Shepherd, and Sharfman 2011). Individual characteristics of fund managers are equally important as organisational context and interaction in the investment decision-making process (Bleaney and Smith 2010). Bonn (2005) argues that an understanding of strategic thinking needs to investigate the characteristics of an individual strategic thinker as well as the dynamics and processes that take place within the organisational context. Kaufman and Herman (1991) hold a similar view that strategic thinkers should use an integrated approach to deal with the firm as a holistic system which incorporates procedures, policy, culture, individual working and leaders together. Strategic thinking depends on an individual's background, level of work experience, and exposure to certain environments (Dragoni et al. 2011). The individual cognitive ability linked to strategic thinking ability includes higher IQ, larger working memories, faster reaction times and greater susceptibility to visual illusions (Frederick 2005). Warren, Howat, and Hume (2011) mention that strategic thinking competency is the sum of experiences and knowledge, skills, traits, aspects of self-image or social role, values and attitudes a strategist has acquired during their lifetime. They summarise that the core competencies for strategic thinking include business, technical, knowledge, management, leadership, social and intrapersonal competencies. Dragoni et al. (2011) conclude that strategic thinking competency is the knowledge, skills, and abilities leaders need to formulate value-creating strategic goals and strategies. In addition, Dragoni et al. (2011) find convincing evidence of a positive relationship between accumulated work experience and an executive's strategic thinking competency. They argue that extraversion and openness are personality traits that contribute to work experience accumulation and even strategic thinking competency.

Strategic thinking and investment decision-making processes at the organisational level have been explored and well discussed in literature (Bonn 2005; Holland 2006, 2016); however, there is a lack of clear overview about the role of strategic thinking in investment decision-making at the individual level. Our research aims to bridge this gap by investigating the strategic thinking framework adopted by individual FoF managers and strategic thinking competencies used as the selection criteria in multi-manager portfolio construction decision-making.

3. Research setting and methods

This study attempts to explore how FoF managers make investment decisions through strategic thinking in the Chinese funds market. China is the second-largest economy in the world, and the Chinese mutual fund industry has experienced exponential growth as industry was deregulated in an attempt to stimulate market development. The number of mutual funds has increased from 107 open-end mutual funds in 2004 to 4,957 at the end of 2018 and from six fund management companies in 1998 to 120 at the end of 2018 (C. C. Huang 2019). Secondly, although FOF was introduced in 2005, it only attracted public attention in recent years in light of the government policy initiated in 2016 (CSRC 2016). The number of publicly available FoF products has increased from 6 to 74 within a year in 2018. Most importantly, FoF is a unique instrument that evaluates both managers' skills and funds' performance simultaneously. These funds employ different strategies from securities and are exposed less to market movements (Farrell and Gregoriou 2000). In comparison with a mature market, such as the US market, the Chinese market is quite volatile and experiences frequent sharp rises and declines with monthly stock market volatility reaching 9.65% compared to 4.45% on the S&P 500 from 1996 to 2015 (K. Chen et al. 2016). Therefore, the Chinese rapid-expanding fund market provides a great opportunity to observe the contribution of mutual fund managers and fund performance in the growing mutual fund market.

This paper adopts both a questionnaire and interview survey as this enables triangulation understanding of their responses. We use qualitative methods to collect and analyse information, which allows us to describe and test the strategic thinking theory applied to fund management (Van Maanen 1979) or extend the emerging theory (Shah and Corley 2006). Moreover, the proposed method provides resources to identify and understand complex phenomena from the point of view of the participants in the process (Miles and Huberman 1994). Our survey-based approach relies upon direct contact and snowballing techniques to access FoF managers and provide insights into FoF managers' decision-making process. The initial group of FoF managers was identified through the researcher's network, and these participants were then involved in identifying other potential candidates from their networks (e.g. Saunders, Lewis, and Thornhill 2009).

Our questionnaire was mainly based on previous literature (e.g. J. Chen et al. 2004; Mansor, Bhatti, and Ariff 2015) in relation to the established factors on fund performance. The questionnaire includes three sections:

- (i) General information on FoF managers: The education and previous work experience of FoF managers were gathered because these attributes are known to influence fund performance, as shown in a study by X. Huang and Shi (2013).

The questionnaire design delved into the current composition of a FoF manager's portfolio, encompassing factors such as the number of funds under their management, their years of experience as a FoF manager, and their chosen investment strategies. This examination was motivated by the understanding that a mutual fund manager's exceptional performance can be attributed to their skill in 'timing' the market (market timing) and/or their ability to predict the returns on individual assets (Lee and Rohman 1990).

- (ii) Information usage: we examined how FoF managers evaluate fund managers' attributes when they invest. These attributes include fund-specific and manager-specific characteristics. Previous studies have shown that fund performance is significantly affected by both type of features (Indro et al. 1999; Ippolito 1989; J. Chen et al. 2004; Mansor, Bhatti, and Ariff 2015; Elton, Gruber, and de Souza 2018; Chevalier and Ellison 1999; Golec 1996; Gottesman and Morey 2006; X. Huang and Shi 2013).
- (iii) Sources of information: we examined information sources that FoF managers use, encompassing both publicly available and privately held data outlets. Existing literature indicates that private sources of information are likely to be different from publicly available sources of data as they provide information that is more timely and closer to the return generating process than current public domain data (Holland and Doran 1998).

We conducted two pilot studies in January 2018 to validate the questionnaire design. Among 745 FoF products listed in the WIND database, the contact details of only 147 products are available. In May 2018, through Qualtrics, QR code as well as web link was sent to 85 asset management firms and other financial institutions, within which 62 security firms and 30 completed responses were accepted for the current study between May and August 2018. Second, chasing up emails were sent to FoF managers a month later. A third set of reminder emails were sent 2 weeks after that. We received 63 return questionnaires; however, only 30 were completed in full and used in the current study. The response rate for the entire questionnaire survey was approximately 20%.

In addition, we adopted a purposeful sampling to target this particular group of respondents due to the limited accessibility of these professionals. Deciding on the minimum level of interviews to be carried out in qualitative research is a never-ending question (O'Reilly and Parker 2013). In qualitative research, the emphasis is on depth rather than breadth. Small samples can be sufficient when the research goal is to gain deep insights into a specific phenomenon. Glaser and Strauss (1967) proposed at least 10 interviews to capture the patterns and divergence across interviewees. However, the key strategy we followed is to reach theoretical saturation (O'Reilly and Parker 2013), when no further insights were coming from new interviews. Therefore, we claim to have achieved theoretical saturation since the last interviewees did not provide any additional evidence or new insights. Crouch and McKenzie (2006) concluded that a small number of cases can facilitate the researcher's close association with the respondents, and enhance the validity of fine-grained, in-depth inquiry in naturalistic settings.

Reducing disparities between selected and non-selected samples in the interviewee selection process requires careful planning, transparency, and a commitment to fair and unbiased research practices. In this study, we articulate the criteria for purposeful sampling: our target participants consist of FoF managers employed by state-owned organisations, and we require a minimum of 2 years of experience in managing FoF as an inclusion criterion. A semi-structured interview schedule encompassed 14 questions, aimed at enhancing our comprehension of the decision-making process employed by FoF managers. To grasp how these managers achieve superior performance, it is imperative to scrutinize their choice of investment strategies in relation to risk levels, as underscored by Brunel in 2006. The interview schedule included

Table 1. Interview respondents.

	Organisations	Private/ Public FoFs	No of FoFs under management	Years of experience in FoFs management
Interviewee 1	Securities firms	Private	2	2
Interviewee 2	Assets management firms	Public	2	3
Interviewee 3	Assets management firms	Public	1	8
Interviewee 4	Securities firms	Private	5	9
Interviewee 5	State financial institutions	Private	2	7
Interviewee 6	Asset management firms	Public	2	2
Interviewee 7	Securities Firms	Public	1	11
Interviewee 8	Securities Firms	Private	1	10
Interviewee 9	Asset management firms	Public	1	2
Interviewee 10	State financial institutions	Private	4	4

a request for a comprehensive explanation of the fund or fund manager selection process, with the aim of uncovering rational approaches with creative thought process and the intricate requirements and criteria employed by FoF managers (Bonn 2005). The strategic thinking framework integrates a dual-level approach, combining the micro level, which centres on individuals and teams, and the macro level, which pertains to organisations and their contextual surroundings (Bonn 2005; Holland 2016). The interview questions to FoF managers were specifically crafted to unveil how the organisational context impacts FoF managers' individual thinking and behaviour.

Ten semi-structured interviews were carried out at the FoF manager's company office in August 2018. The interviews with all 10 FoF managers lasted 60 minutes, respectively, on length. All interviews were recorded and detailed notes were taken by the researcher. The interviews that we recorded were transcribed and coded using a two-stage process, with questions of emphasis or meaning checked back against the audio recordings and written notes.

Table 1 presents the demographic information on the interviewees with respect to the type of organisation served, private/public FoF product, number of FoF under management and year of experience in FoF management position. Among 10 interviewees, the longest working experience in FoF management is 11 years with the security firm versus the shortest experience of 2 years with the asset management company. The mean FoF product under management in the sample is 2.

4. Analysis of findings

In this section, we analyse and discuss our research findings from both questionnaires and interviews, paying attention to the mechanisms employed by FoF managers, and using supporting extracts from our anonymised data.

4.1. Profile of FoF managers

Table 2 presents data derived from a questionnaire survey detailing FoF (Funds of Funds) products, focusing on their management by various categories of organisations. FoF managers in assets management companies (AMC) normally work with a large supporting team, including investment analysts and risk management, which results in advances in their fund selection activities as shown in Table 1. AMC can access a wider range of fund products than that of state/private financial institutions and security firms. As a result, FoF managers in assets management firms manage an average of 20 funds in contrast to 6 funds hold in the FoF portfolio of state/private financial institutions and an average 8 in security firms. FoF products offered by assets management firms are relatively new investment vehicles in the Chinese market and FoF managers recruited are more likely to possess technical skills in portfolio management, according to interviewee 2. In terms of size of managed FoF portfolio, managers in state/private financial institutions manage the largest size of FoF product among the three groups with an average value 10 billion of RMB (as in 2018).

Table 3 presents the qualification of FoF managers from a questionnaire survey. The results indicate that higher education is a basic requirement for FoF managers, over 70% FoF managers have a Master's degree, MBA or even a Ph.D. 6 out of 30 respondents are also certified CFA holders. This finding further suggests that FoF managers have a degree level of financial analytical skills and cognitive ability.

Table 4 shows that 82% of questionnaire respondents have prior work experience in the finance industry. Fourteen percent of which have experiences in fund management and 15% have experience in security firms as either an industry or

Table 2. FoF products provided by different organisations.

Organisations	State/Private financial institutions	Assets management firms	Securities firms
Type of FoFs products	Private	Public	Private/Public
Most selected funds in FoFs portfolio	Mixed fund and stock fund	Mixed fund/ money market fund/stock fund/bond fund	Mixed fund and stock fund
Average size of FoFs product (billions of RMB)	10	2.7	1
Average number range of Funds under each FoFs portfolio	6	20	8

Table 3. Qualification of FoF managers.

Qualification	Count
Undergraduate	8
Postgraduate	10
MBA	7
Doctorate	6
CFA	6

Table 4. Prior working experience of FoF managers.

Working experiences	Percentage	Number
Fund management	14%	5
Industry analyst	9%	3
Macroeconomics analyst	6%	2
Other finance related	53%	18
Other non-finance related	18%	6
Total	100%	34

macroeconomics analyst. This result is also confirmed from the interview result as interviewee 5 indicates:

... you would find that many FoF managers worked as financial analysts in the previous jobs as they have more connections with fund managers and know them better ...

We find that FoF managers previously worked in finance as well as non-finance-related industries, only 14% of the respondents have fund management experience, these results echo the finding that Chinese fund managers also come from diverse career backgrounds in the previous study (R. Chen et al. 2018).

FoF managers anticipate a growing trend in the popularity of FoF products as a preferred choice for hedge fund investments among both individual and institutional investors in China. They also hold the view that as the Chinese financial market attains a certain level of maturity and professionalism, the key advantages of FoF, such as professional teams and the ability to balance risk and return, become more evident. FoF managers express their perspectives on the imperative need for the development of FoF. Interviewee 2 states that:

There are two main incentives for the developments of FoF, 1) sufficient fund products available and FoF could maximise the return with diversified risk based on the portfolio theory. 2) the needs in the development of pension fund.

However, FoF managers who manage public FoF products believe that there is a conflict of interests between government guidelines and investors' return, therefore it constrains the FoF manager's selection criteria, which further dampens FoF performance. Interviewee 4 adds:

The design and existence of FoF is coming from a top management perspective. As the number of funds exceeds the number of shares, investors may have difficulty choosing fund ... the result of multi-diversification would make the performance of FOF similar to an index ...

Nevertheless, FoF remains complementary to the Chinese financial market claimed by a number of interviewees. Our study indicates that FoF products are normally issued and managed by three types of organisations in China, namely, security firms, asset management firms and state/private financial institutions. Securities firms that issued the very first FoF product in China in 2005, had a reasonably long history of managing FoF portfolios. Publicly traded FoFs are issued by asset management firms, while the securities firms are permitted to issue either private FoF products or publicly traded FoF products upon approval by the China Securities Regulatory Commission (CSRC).

4.2. FoF managers' decision-making process

According to the results of our questionnaire and interviews, FoF managers combine a rational approach with their creative thought processes in their portfolio construction. The rational decision-making process followed by FoF managers includes all three recognised approaches in the field, namely, top-down, bottom-up and joined approaches (Holland 2016); however, the preference is for the top-down approach according to both questionnaire and interview responses. Based on the questionnaire results and interview described in Table 5, we develop a thematic framework to conclude our findings. Figure 1 summarises FoF managers' three-tier decision-making processes and attributes during FoF product development.

The decision-making processes of FoF managers can be divided into three-tier hierarchies: strategic asset allocation, tactical configuration and product configuration. Strategic asset allocation is at the top level, as the senior management would impose certain requirements on the FoF products design, and the operational practices/approaches to meet the government's target on pensions as well-organisational target on performance. At this level, the focus of the strategy is to comply with the investment boundary. FoF managers define their investment objective on FoF products and their relative tolerance for risk and constraints accordingly. Interviewee 3 describes investment boundary as:

... investment boundary relates to every manager and individual product. The boundary is about the type of product you are offering to investors, for example, risk preference, required liquidity of the product, investment scope and expected return.

At the second level, the tactical configuration includes market timing and industry alterations. Previous studies indicate that the superior performance of a mutual fund manager occurs because of his ability to 'time' the market (Lee and Rahman 1990). To time the market, FoF managers pay close attention to domestic market events and changes in government policies when managing their funds.

Table 5. Fund-specific and managerial attributes.

Kendall's W test	Mean rank
Fund size (Fund)	12.77
Past performance (Fund)	12.48
Investment philosophy (Managerial)	12.20
Experience in managing current fund (Managerial)	12.08
Actively or passively managed (Fund)	11.72
Working experience (Managerial)	10.80
Risk (Fund)	10.77
Assets allocation (Fund)	10.94
Number of funds under management (Managerial)	10.52
Transaction fees (Fund)	10.13
Management fees (Fund)	9.98
Fund age (Fund)	9.70
Public or private fund (Fund)	9.50
Fund ranking (Fund)	9.28
Age of fund manager (Managerial)	6.45
University graduate from (Managerial)	5.42
CPA or Not (Managerial)	3.42
MBA or Not (Managerial)	3.15
Kendall's Wa.406; Aysmp.Sig:	.000

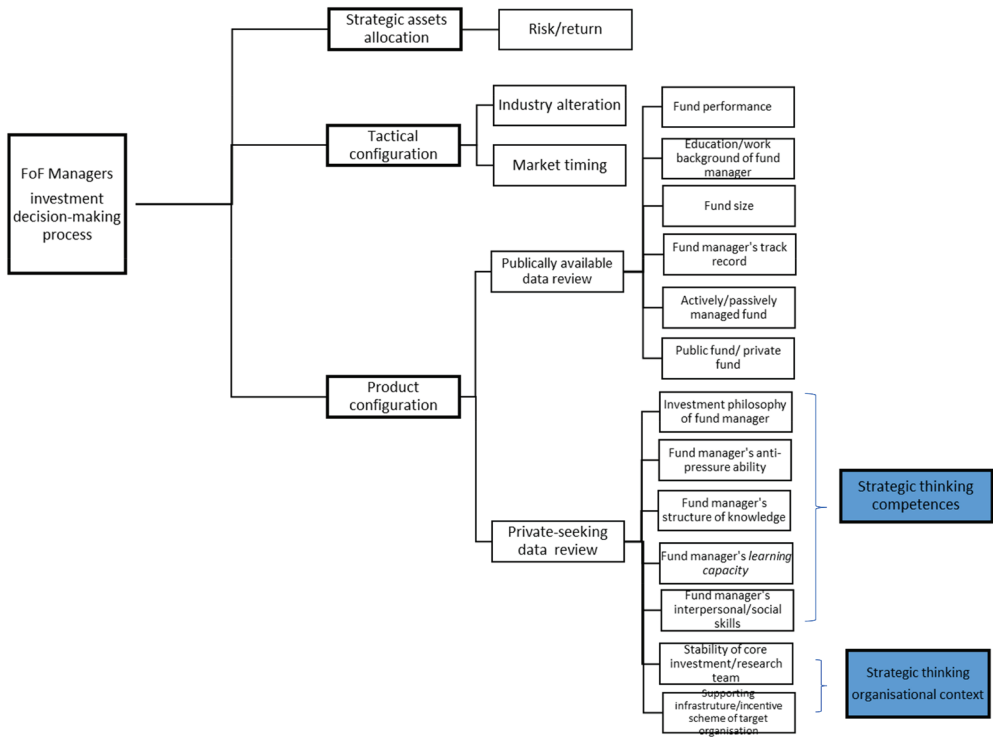


Figure 1. Thematic framework for FOF managers' decision-making process.

Respondents from the questionnaire survey support the above claim. Interview respondents acknowledge the importance of market timing under market volatility as follows:

Due to the high volatility in the Chinese financial market, market timing is the only way to make superior returns, we forecast general economic development over a 3-year cycle, follow government policy on the financial market closely and also pay attention to movements in the international financial market ... (interviewee 6)

Interviewee 7 further explains:

Government policy may prioritise the development of certain industries, we would rebalance our portfolios accordingly ...

Strategic thinking focuses on synthesising experiences (Mintzberg 1994), and it has an impact on FoF managers' investment strategy. FoF managers always attempt to learn from their past investment experiences, especially the underperformed ones. Interviewee 7 mentions:

There is no one-fits-all strategy in my opinion. when it comes to portfolio management; I always got a negative return when I tried to time the market. ... therefore industry picking is my approach. ...

The previously discussed factors in the investment strategy by FoF managers are based on the risk and return of the FoF products. The performance appraisal cycle of FoF managers

also becomes an incentive for conducting market timing as indicated by previous literature Drachter et al. (2007). Interviewee 4 holds the opinion that:

Market timing is always inevitable if the performance review cycle is short, for example, one year.

Both strategic assets allocation and tactical configuration are relevant to beta, whereas product configuration advances alpha in managing portfolios. Due diligence is an important source of alpha in this third layer of decision-making process-product configuration. Interviewee 3 mentions that the second layer could be combined with the third layer:

Sometimes, we would conduct market timing and product configuration at the same time due to market inefficiency. The inefficiency was caused by short-termism of Chinese individuals as well as institutional investors. Superior return could be generated from fund picking as well as industry picking.

For FoF managers who prefer a bottom-up investment strategy, their approach is influenced by the size of the FoF product in their management. As for a small-size FoF product, a bottom-up approach is easier and more controllable by simply selecting funds with high performance. The investment strategy of FoF managers could also be influenced by individual beliefs and values. Interviewees point out that there is always a concern that the FoF managers' judgement on the market is different from fund managers' judgement, in that case, FoF managers could adopt an optimisation strategy by selecting passively managed funds to avoid potential conflict. However, FoF managers are more likely to take an opposite position considering the Chinese market characteristics. This strategy is further explained by interviewee 9:

...we are more likely to select actively managed fund as those funds are more likely to beat the market through active management and gain excess return given the constantly changing policies by the policy makers ...

In general, FoF Managers adopt a three-tiered decision-making process when they choose a bottom-up or top-down approach. This rational approach is normally combined with their individual experience, intuition and creative thought process.

4.3. Attributes to be assessed in fund selection by FoF managers

Research suggested that individuals may reduce the expected risk of an equal-weighted 'naïve selection' multi-manager portfolio by careful selection of managers (Rostron and Colvin 1999). In psychology, decision-making is regarded as a cognitive process resulting in the selection of a belief or a course of action among several alternative possibilities. In principle, FoF provides investors with diversification across manager styles and professional oversight of fund operations that can provide the necessary degree of due diligence. Each FoF manager have their own recipe and criteria for fund managers' selection and procedures to build up their 'sourcing' pool. Prior literature suggests that both fund-specific attributes and managerial attributes have an impact on fund performance (X. Huang and Shi 2013; Li, Zhang, and Zhao 2011; Mansor, Bhatti, and Ariff 2015), our questionnaire results attempt to explore what attributes FoF managers perceive as being the most important ones in building their FoF products.

Table 5 shows that the top three ranked attributes are fund size, fund past performance and investment philosophy of fund managers. Our questionnaire revealed that fund-specific attributes (e.g. fund size and fund past performance) usually draw FoF managers' attention first as suggested by the existing literature that the fund-specific characteristics have a significant influence on the performance of the fund (e.g. J. Chen et al. 2004; R. Chen et al. 2018). Previous studies suggest that performance declines as fund size increases, which is evidence in support of economy of scale problems in the industry. This inverse relationship between funds' performance and the size of the funds is related also to liquidity (J. Chen et al. 2004). Interviewee 2 explains:

... investment contribution margin reaches a plateau period once in a certain size...we normally focus on fund size in a range of 3 to 5 billion (RMB) as they tend to have better performance.

4.3.1. Strategic thinking competencies assessed in fund selection by FoF managers

FoF managers claim that managerial attributes play a pivotal role in FoF-level decisions and are not merely supplements to fund-specific attributes. Information related to fund managers, including their investment philosophy, career track records, and educational background, is the second factor to consider. Interviewee 9 claims:

... fund-specific characteristics are like the presentation/reflection of fund managerial attributes, therefore the core is to select fund managers ...

The significance of an investment philosophy is consistently emphasized as a critical criterion in the selection of fund managers. FoF managers employ a range of approaches, including both quantitative methods like statistical models incorporating historical track records and qualitative methods that involve more subjective evaluations, to ascertain the investment philosophy of fund managers. This investment philosophy reflects the strategic objectives and values of fund managers, constituting an integral aspect of their strategic thinking competencies (Dragoni et al. 2011; Warren, Howat, and Hume 2011). Strategic thinking enables FoF managers to combine a three-tiered rational approach with a personalized creative process, allowing them to assess how fund managers differentiate themselves from their peers and attain a competitive edge through the adoption of distinct investment philosophies. More importantly, the stability and sustainability of fund managers' investment philosophy would be assessed by FoF managers. Interviewee 2 notes that:

... it is extremely important to find out whether a fund manager's investment philosophy is stable and sustainable within at least three years period. The key advantage of active FoF management is to evaluate the investment philosophy of fund managers. This investment philosophy should not deviate from its core value.

It is believed that this stability and consistency of the fund managers' investment philosophy reflects fund managers' traits that are less prone to be affected by psychological factors such as emotions, moods and feelings. Therefore, fund managers who have a more stable and consistent investment philosophy are considered to be more capable of judging the situation and making better investment decisions under pressure. Interviewee 8 claimed:

... Fund manager's values are mirrored in his fund performance and management style. It blends in personal traits, behavioural and psychological traits ... you could further judge other abilities on top of these values, for example resilience; learning capacity, and risk management skills. Overall it is about what he believes the core value is in fund selection.

As suggested by the literature, a strategic thinker uses an integrated approach to deal with the firm as a holistic system which incorporates procedures, policy, culture, individual working and leaders together (Kaufman and Herman, 1991). Bonn (2005) argues that an understanding of strategic thinking needs to investigate the characteristics of an individual strategic thinker as well as the dynamics and processes that take place within the organisational context. FoF managers do not solely concentrate on the investment philosophy of individual fund managers but also extend their scrutiny to the organisations in which these fund managers operate. FoF managers evaluate whether there is a replicable investment system within the entire organisation, as this can significantly influence the performance of individual fund managers. Is the organisation able to engage and retain top talent? FoF managers actively seek out information on the turnover rate of the fund manager's team, organisational culture, fund management practice and current operation mechanism. Operation mechanism includes co-investment policy; profit sharing policy (incentive scheme); competition mechanism; internal decision-making mechanism. All the information would be integrated into FoF managers' strategic decision-making.

... before we choose a fund manager, we dig out information on the company he serves, including the company's culture, management hierarchy; stability of management, stability of research team, incentive scheme and so on ... (Interviewee 1 and 10)

Interviewee 5 adds:

... Historical performance of the fund is important, more importantly, we pay attention to the relevance of historical performance in comparison with current team performance. If team turnover is high, we would even measure the current team's contribution in relation to historical performance ...

Some claim that age, education and qualification of fund managers are among the least important factors to be considered by FoF managers. Interviewee 4 also supports this claim and explains that age and gender are not given too much weight to fund managers. The individual cognitive ability linked to strategic thinking competency include higher IQ, larger working memories, faster reaction times and greater susceptibility to visual illusions (Frederick 2005). Interviewee 5 and 8 are in line with the findings of existing literature:

Educational background is a reflection of a fund manager's IQ and learning ability ... selecting funds is about selecting fund managers, we choose candidates with high learning capacities ...

From FoF managers' perspective, the fund manager selection process is an accumulative, continuous and dynamic process, it grows into a 'sourcing' pool. There are no 'good' or 'bad' fund managers, only suitable managers whose skills and capabilities match FoF portfolio and market requirements at the time. Interviewee 3 further explains:

We will select the fund managers whose investment background, the structure of knowledge and investment philosophy match the demand from the market. In this case, we let the market and environment set the general direction, and then select fund managers to fulfil this need ...

The portfolio construction is a process of trial and error, FoF managers make decisions by incorporating past experiences and intuition. FoF managers sometimes tend to choose a fund manager who performed well in a bear market, then traces back his performance in a bull market to validate their judgements. Interviewee 8 uses a metaphor to describe his dynamic selection process in fund managers after decisions made on the market and industry.

We see ourselves as a coach (asset allocation), every fund manager is a team player, some are more suitable for playing basketball (e.g. equity asset), while others are better at playing football (e.g. bond asset) ...

Even though FoF managers use various criteria and tools to help compose their FoF portfolios, they also value their intuition. Interviewee 7 with the longest experience in FoF management claims that accumulated work experience gives him a comparative advantage in fund manager selection:

Selecting funds through the quantitative method based on past performance, you will end up with a portfolio that just hit the average, or even below average. Talking to a fund manager for about 10 minutes I would probably know this fund manager's core values and style based on my many years of experiences...

Warren et al. (2011) mention that the core of strategic thinking competencies include business, technical, knowledge, management, leadership, social and intrapersonal competencies. Fund managers' social and interpersonal skill is perceived as an important measurement of FoF managers' qualitative approach decision-making process. Interviewee 6 emphasises:

... I would choose those fund managers who have good social skills and trading skills, who are open and willing to share information with us (FoF managers) and give us regular updates ...

FoF managers as strategic thinker take into account all rounded factors both at the organisational and individual level in selecting fund managers. Although fund-specific traits including fund size and fund performance attract their attention initially, FoF managers dig out the core value of fund managers including their personality traits and strategic thinking competencies.

4.4. Source of information for FoF managers

On top of the fund manager's traits, superior technical analysis is also a contributing factor to high-performance FoF portfolios. FoF managers work with a team of excellent resources and researchers to exploit excess returns from their sophisticated analytical models and research-driven data output. Therefore, the quality of data and models is the determinant of the development of fund products. Given that these models are more dependent on researchers, we investigate the preferred source of information for FoF managers to make informed decisions on selecting funds. With this in mind, we ask

whether they use publicly available databases or their proprietary data set. As indicated in a previous study, fund managers use publicly available data and information obtained from private meetings, and then process information through analytical models developed by their research team (Barker et al. 2012). Our findings indicate that FoF managers also combine both public and private information to guide their fund-picking decisions. Publicly available information is from the target company's websites, official statistics, financial databases (e.g. WIND) and so on. In addition, information could also be purchased from other information intermediaries or research institutions. This information pool is served as the source for setting up a quantifiable matrix in the fund selection stage (Amenc et al. 2004).

Table 6 presents the importance of private information from the questionnaire survey. Both mean rank and mean score are calculated, where mean rank is used to rank the order between various source of information and mean score shows the numerical significance. It clearly shows that direct communication with the fund manager is the most important source of information of all.

FoF managers perceive seeking private information is a way to innovate their thought process and it is obtained either through phone or face-to-face meetings with fund managers.

Qualitative review (private chats) can give me the edge over other people... (Interviewee 8)

Fund-related information is only released quarterly, therefore it is beneficial to

maintain regular communication between cycles with fund managers... (Interviewee 6)

Comments from other interviewees (3, 4, 5 and 7) further demonstrate that seeking private data could eliminate information asymmetry between FoF managers and Fund managers. However, interviewee 3 shows a concern that private information could misguide or introduce bias to judgement (need to explain more in detail).

Publicly available data are collected and computed to identify the best possible options on funds, and then private information is employed to test the validity of the data output through the convergence of information from the private sources, as interviewee 2 points out:

... quantitative analysts normally select the best performing fund manager and use 30 criteria (e.g. all previous working experience, all track record at current and a previous fund managed) to quantify their investment philosophy/style. Qualitative analysts research on detailed fund holding and so on to verify the quantitative reports. A private meeting is used to make final verification on both quantitative and qualitative reports ... when all three ways match, this manager will be selected in our 'sourcing pool' for a further 3–6 months of observation and waiting for the right market.

Table 6. Importance of source of information.

	Mean rank	Mean score
Direct communication with fund managers (Private)	4.18	4.00
Fund manager report (Public)	3.78	3.83
Financial report of the fund (Public)	3.78	3.77
Invite Fund manager to deliver presentation (Private)	3.38	3.67
non-financial information on corporate website (Public)	2.97	3.30
Fund report from third party (Private)	2.90	3.23

Despite the complexities and risks involved in fund manager selection as well as the time- and cost-intensive nature of the work, our results show that all due diligence process is carried out internally rather than subcontracted, against finding from a previous study (Amenc et al. 2004). FoF managers from the interview survey claimed that their energy evenly devotes mainly to three activities: 1) research process and portfolio construction, 2) investment decisions, and 3) risk management and monitoring. The goal of monitoring is to re-validate the original investment decision and understand any changes to the strategy, portfolio and team.

FoF managers demonstrate their strategic thinking competencies by seeking and accessing private information, communicating with fund managers and extracting important information from private contact. They are also looking for efficient communicators from fund managers (Holland 2006).

5. Discussion and conclusion

FoFs are becoming a mainstay of institutional investors' portfolios for downside equity risk management as these funds employ different strategies and are less exposed to market movements (Farrell and Gregoriou 2000). However, each FoF manager has their own 'recipe' and criteria for manager selection, which can yield varying outcomes. Previous literature suggests that both routine investment task sequence and sense-making reveal different but related insights into the phenomena of inductive, iterative, pattern-seeking cycle evident in actual fund management decision-making (Holland 2016). Thus, this paper aims to explore how FoF managers incorporate strategic thinking in their decision-making process through empirical evidence.

Strategic thinking has been employed in both the management and psychology literature. The management literature focuses on the process of strategic thinking and decision-making (Drejer, Olesen, and Strandskov 2005; Mintzberg 1994), whereas the psychological literature in relation to behavioural finance focuses on factors affecting strategic thinking and decision-making (Hambrick and Mason 2001; Pant and Lachman, 1998). This study aims to explore how FoF managers incorporate strategic thinking in investment decision-making and which factors/attributes they deem consider as the most important in fund/manager selection. This allows us to identify how FoF managers build up their own 'sourcing' pool.

Drawing from the management perspective of strategic thinking, our findings indicate that FoF managers' decision-making process combines a rational approach with a creative thought process. The thematic framework involves three different levels: strategic allocation of assets; tactical configuration and product configuration. FoF managers' investment strategies are largely influenced by their own synthesising experience, intuition and creativity as suggested by the strategic thinking literature (e.g. Mintzberg 1994). Our findings also show that fund size, historical fund performance, and fund managers' investment philosophy are the highest-ranked attributes, whereas age, education and qualification of fund managers are the least important attributes considered by FoF managers in 'sourcing'. From a psychological perspective, the results indicate that the investment philosophy of fund managers is considered the most important factor among manager-specific attributes. FoF managers want to identify those fund managers who

implement distinctive investment strategies and have stable investment styles. FoF managers perceive that investment philosophy and its stability reflect one's 'personality traits; individual belief and value'. This may help to determine whether that manager has an 'investment edge' that is likely to replicate superior performance in the future. Furthermore, our results indicate that FoF managers also assess fund managers' accumulated work experience, individual cognitive ability and open-mindedness, since extraversion and openness are personality traits that contribute to work experience accumulation and strategic thinking competency (Dragoni et al. 2011).

FoF managers do not merely focus on selecting suitable fund managers whose investment style/philosophy/approach matches are consistent with the current market and environment, they also investigate fund managers' supporting team to ensure that the whole investment performance is replicated in the subsequent period. In addition, they evaluate the entire organisation in a holistic way to determine whether the fund manager can achieve self-actualisation within the observed environment. Bonn (2005) highlights that understanding strategic thinking requires reviewing the characteristics of an individual strategic thinker in addition to the dynamics and processes within the relevant organisational context, FoF managers reflect this in their thinking processes. Thus, the strategic thinking competencies of fund managers are dynamically assessed during the fund manager selection process. Core strategic thinking competencies comprise business, technical, knowledge management, leadership, social and intrapersonal competencies (Warren, Howat, and Hume 2011).

FoF managers are ready to bring their perspectives to the strategies that they have worked on during their formative years to develop their investment processes. They build their own 'sourcing' pool and are constantly looking for new investment ideas in order to fulfil their investment mandates. Having an active and continuous manager 'sourcing' effort is crucial for FoF Managers.

The art of fund selection blends quantitative and qualitative approaches in selecting funds and fund managers. FoF managers adopt strategic thinking as evidenced by their dynamic and creative decision-making process. In addition, they attempt to select fund managers who possess strategic thinking competencies. FoF managers actively seek out private information to reveal and understand publicly available attributes, i.e. fund-related attributes and fund managers' track record. This private information helps to determine fund managers' core values and personal beliefs, and whether their strategic thinking competency plays an instrumental role in achieving their goals.

This study has significant practical and academic implications. The importance of strategic thinking in organisations has been unanimously confirmed in the literature (Besanko, Dranove, and Shanley 2000; Bonn 2001, 2005; Porter 1996). Benito-Ostolaza and Sanchis-Llopis (2014) suggest that strategic thinking in appropriate training programs is the solution for executive managers and leaders to cope with evolving challenges. The presented framework provides an outline to support the strategic thinking training activities in the investment management profession. This framework can also be employed as a control tool and checklist for new FoF managers to engage in strategic thinking activities. Also, the strategic thinking core competencies identified from our analysis could be developed and embedded into Autonomous Learning Investment Strategies (ALIS) to build 'sourcing pools' for FoF managers. Our study extends the existing literature in two ways. First, we extend the literature on the decision-making

process of FoF managers. Second, we assess if the determinants of fund performance identified in the existing literature play a key role in fund-level decisions.

Our study is subject to a number of limitations. First, although this study focuses on China, the results and findings may be different if a different country is selected, especially when compared with other developed countries. Second, due to data constraints encountered in this study, the accessibility of FoF managers, the generalisability or external validity of your findings due to disparities between the selected and non-selected samples could be improved in larger samples. In terms of future research, an alternative research approach could be used to examine the relationship between the adoption of strategic thinking and fund performance. In addition, future research could explore the characteristics and performance of publicly and privately issued FoFs separately to address any differences more conclusively.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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