Influence of human resource capital information disclosure on investors' share investment intentions

An Australian study

Received 29 July 2014
Revised 7 September 2015
Accepted 7 June 2016

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Abstract

Purpose – The purpose of this paper is to apply the strategic human resource management (HRM) perspective to investigate the schematic relationship between the dimensions of human resource (HR) capital information and intentions to use such information in individual investors' decisions relating to investing equities in the banking industry.

Design/methodology/approach – A two-stage empirical study was conducted in 2010 using a four-part HR capital disclosure questionnaire, which was developed and validated in stage 1 ($n = 145$) of the study. In stage 2 ($n = 157$), current or previous shareholders in one of the Australian banking sector corporations participated in the study. The collected data were analyzed using confirmatory factor and logistic regression analyses.

Findings – The findings of this explorative study highlight that the individual investors' perception on the importance of performance management dimension of HR capital information has varied impacts on their intentions to use such information in investment decisions to buy, hold on to, or sell stocks.

Practical implications – This study has made an important contribution to the strategic HRM and behavioral finance literature that the human capital information facilitates the propensity to avoid regrets in selling shares too early (dispositional effect bias) to achieve utility benefits in future which is different from the findings of financial information disclosure study.

Originality/value – A recent critical review of HR disclosure indicated that most of the published articles on HR capital have used company annual reports for data source. However, this is the first study that attempts to understand the impact of HR capital disclosure information on investment intentions from individual investors' schema rather than drawing data from company annual reports.

Keywords Quantitative, Intellectual capital, Decision making, Human capital

Paper type Research paper

Strategic management is concerned with the performance of the entire corporation; it is concerned with long-term corporate objectives, and it delivers planning and policies to achieve such objectives. Institutionalizing a strategic plan for the management of a company's human resources (HRs) provides the support for the company's overall competitive strategy. Kaye (1999) defines strategic human resource management (HRM) as a system-wide intervention that ties HRM to strategic planning and cultural change. The main focus of strategic HRM is the integration of a combination of HRM practices to facilitate corporate competitive advantage (Huselid *et al.*, 1997). In an attempt to achieve sustained competitive advantage, a company must develop and use key organizational competencies, which are facilitated and enhanced by a range of HRM activities functions and processes (Lado and Wilson, 1994). The competitive advantage of corporations is projected in the share price of a company based on their future value from the difference between their market value and what their current financial performance would deserve (Ballow *et al.*, 2004).

Personnel Review
Vol. 46 No. 3, 2017
pp. 551-571

0048-3486
DOI 10.1108/PR-07-2014-0166

Corporate reporting by public companies not only serves to disclose information about the financial state of their companies to their stakeholders but also serves to provide information on the range and combination of strategies and resources companies have to leverage their competitive position facilitating the necessary growth for their future. From a strategic HRM perspective, reporting on the HR capital as intellectual assets needed to facilitate corporate strategy and effectiveness may be one way for a company to attract greater investment dollars.

HR capital is the collective attitudes, skills, and abilities of employees contributing to organizational performance and productivity and is supported by a number of functional attributes. The functional attributes of HRs are those functions that facilitate acquired abilities and the personal attributes of employees and those linked to developing and maintaining appropriate employee values, problem-solving competencies, management, and leadership effectiveness (Bollen *et al.*, 2005). It has been argued that the effective management of HR capital has the potential to add significant economic value to a firm, as excellence in HRM practices significantly increases the potential for organizational success (Verreault and Hyland, 2005). Hence, this is effectively a shift in focus from the operational view to the strategic view of HRM functions (Wei, 2006).

In the field of intellectual capital and behavioral finance, it has been suggested that information on intellectual assets, which includes HR capital, is provided to investors and has a positive effect on company performance (Chen *et al.*, 2005; Lev 2001; Youndt *et al.*, 2004) and company stock prices (Dumay and Cai, 2014). Furthermore, Dumay and Cai in their critical review of intellectual capital disclosure indicated that most of the published articles on intellectual capital have used company annual reports for data source, and future research should radically change this from using company annual reports to understanding intellectual capital disclosure. This critical review clearly indicates that most recent studies published are about intellectual capital reporting, comparison of reporting between countries, market capitalization, etc. However, there is no empirical research currently available to extend intellectual capital disclosure from the stock price impacts to the individual investors' cognitive schema on investment intentions. Hence, this study attempts to bridge this gap in the literature by understanding the role of voluntary HR capital information disclosure in influencing individual shareholders stock transaction decisions (e.g. buying, holding, and selling). Moreover, this study is important for Australia and other similar countries where the disclosure of HR capital information is only voluntary, and there is no government legislation to disclose human capital information to shareholders.

The individual investors' cognitive schema on investment intentions is understood based on individual shareholders' cognitive biases such as overconfidence, biased self-attribution, dispositional bias, and reverse dispositional bias (see Figure 1). Investors' cognitive biases are theories of behavioral finance which are used to explain investors' investment decisions. Behavioral finance has been used to explain market bubbles and market crashes, and it infers that market reactions may be attributed to several cognitive biases including self-attribution, overconfidence, overoptimism and herding, and noise trading that are used by investors in market investment decisions toward promoting self-interest (Daniel *et al.*, 1998).

The aim of this study is to investigate the schematic relationship between the dimensions of HR capital information and intentions to use such information in individual investors' decisions relating to investing equities in companies within the knowledge-based banking industry. In consumer behavior, it is common to study new products or services using purchase intentions to understand purchase behavior. Hence, in this study, an attempt is made to use cognitive schema of the investors in exploring the link between the relevance of HR capital information disclosure and their intentions to use such information while buying, holding on to, or selling shares in a knowledge-based industry. Knowledge-based industries include

organizations involved in banking and finance, information technology, life sciences, and health care and those in media and entertainment (RBC Royal Bank, 2001). Knowledge-based industries and large corporations recognize the value of intangible assets to corporate strategy. Deloitte & Touche's (2003) report asserts that HR capital practices help grow profits and corporate value. Furthermore, Youndt *et al.* (2004) have also found that HRM investments tend to be higher in firms with profiles high in human and social capital.

To achieve this aim, initially a questionnaire was developed and validated to measure the dimensions of HR capital information in study-1, as currently there is no questionnaire available in the literature. Subsequently, in study-2, using a different sample of individual investors, an attempt is made to establish the relationship between the dimensions of HR capital information and their intentions to use such information in investment decision to purchase, hold on to, and sell stocks in eight major banks in Australia.

Practitioners and academics in the field of strategic HRM and individual investors of banking sector companies all will stand to benefit from the results of this research study. More than a decade of research on intellectual capital disclosure has led to believe that intellectual capital disclosure is important for investors because of the impact it has on share price of corporations. However, there is limited research on understanding these personal or individual investors' expectations on information disclosure from the listed companies. Hence, this research has the potential to contribute to individual investors by understanding their stock transaction decisions based on the valuable insight into their schema of relevance of HR capital information disclosure and their intentions to use that information in their stocks purchase decision. Furthermore, understanding the perceptions of individual shareholders about the relevance of HR capital information in their stock purchase intention is necessary because the empirical findings can become the basis for making a compelling case for intangible asset researchers to collect information from alternate sources to that of company annual reports as suggested by Dumay and Cai (2014).

Securities market volatility is caused by investor's overconfidence due to the private information received. However, there is no previous research on private human capital information or advice received by individual investors that enhanced overconfidence bias which led to using such advice in stocks investment decisions. This is the first study to understand the moderation effect private and public information sources have on individual investors' schematic relationship between the dimensions of HR capital information and their intentions to use that information in investment decisions. Hence, this could help private stock advisors and media that provide public advice on stocks to understand the role of private and public HR capital information in facilitating investors' cognitive biases on stock holders' intention to use such information for buying, holding and selling their stocks.

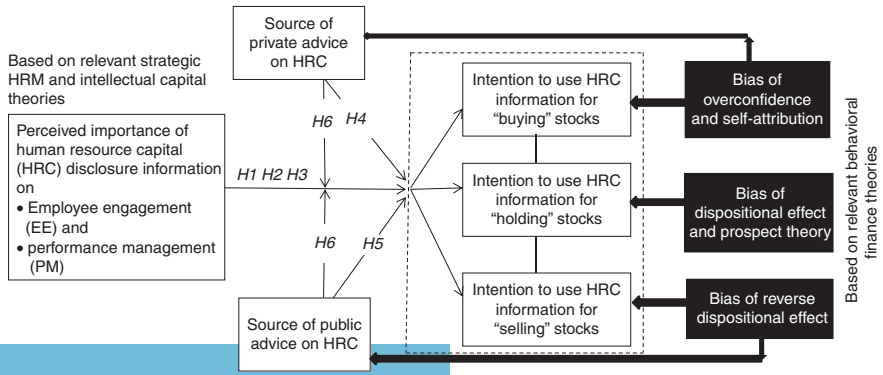

Figure 1.
Relevant theories used for the framework of investors' schema for the impact of HRC information on stock transaction intentions

Finally, this exploratory study envisages theoretical contributions to the strategic HRM literature by borrowing cognitive biases theories (e.g. bias of overconfidence, dispositional effect bias and reverse dispositional effect bias) from the behavioral finance field (see Figure 1) to understand the role of HRC information in investors' stock transaction intentions. The proposed theoretical contribution is based on Whetten's (1989) suggestion as the editor of *Academic of Management Review*, "borrowing a perspective from other fields, which encourages altering our metaphors and gestalts in ways that challenge the underlying rationales supporting accepted theories is critical for theoretical contribution of a study" (p. 493). Hence, the proposed study attempts to make theoretical contributions to the strategic HRM literature by understanding the types of cognitive biases that perceived importance of HR capital information could trigger investors' stock transaction intentions such as buying, holding on to, and selling.

Study-1: HR capital information scale validation

The objective of study-1 is to validate a new scale to measure the perception of HR capital information because currently there is no such measure available in the literature. Furthermore, the validated HR capital information scale from study-1 will be subsequently used in the main study (i.e. study-2) to achieve the aim of the study. In study-1, the HR capital information scale was validated in two parts. In part 1, items were developed based on different definitions of HR capital published in the literature, and subsequently content adequacy analysis was conducted to determine the relevance of items developed to different elements of HR capital definition. Additional data collected on the retained items were analyzed using exploratory factor analysis (EFA) (part-2) to determine the underlying factor structure of HR capital information scale items.

Method – part-1

Item generation. In total, 25 items were developed by the authors based on the HR capital element of individual employee competencies and leadership competencies. Individual employee competencies are about ability, skills, attitudes, experience, knowledge, and expertise that are used to improve organizational performance and productivity (Bollen *et al.*, 2005). Leadership competencies (Kaplan and Norton, 2004) include the ability to create value, execute strategy, and develop the human capital of an organization through coaching and developing to achieve bottom line results necessary for the company. The context of the research is to establish information about the management practices used by organizations to improve HR capital capability to achieve competitive advantage and report to shareholders. Therefore, the items developed to represent HRM practices include information on individual employee competencies (five items) which are used by organizations to attract employees with competitive ability, skills, attitudes, and expertise to achieve improved organizational performance and productivity. Another five items were developed to represent HRM practices that are used to develop company-specific skills, knowledge, and expertise through training and development. Furthermore, items were developed to represent information on leadership practices used by organizations to motivate (five items), engage (five items), and promote innovation and risk taking behavior (five items).

Sample. The pilot questionnaire was distributed to 20 individual investors who were current or previous shareholders in at least one of the eight large commercial banks in Australia. In all, 17 completed pilot questionnaires were returned (85 percent response rate) by the respondents, of which 65 percent were male. In total, 18 percent of respondents for the pilot questionnaire were aged between 26 and 35 years, 15 percent were aged 36-45 years, and 33 percent of respondents ranged in age 46 years and above. The majority of respondents (53 percent) identified themselves as having a university education.

In total, 88 percent (15 people) referred to their employment as professionals. Schriesheim *et al.* (1993) indicated that the important requirement of a content adequacy judge is "they possess sufficient intellectual ability to perform the item rating task and that they be relatively free of serious potential bias" (p. 407). The individual investors as participants in the content adequacy test of the pilot questionnaire have the appropriate capabilities to judge the relevance of items to appropriate elements of HR capital based on the rating task instructions and the definitions of HR capital provided.

Procedure. The 25 items were included in a content adequacy test following the guidelines provided by Schriesheim *et al.* (1993). Participants were requested to determine the degree to which each of the items represented the five elements of HR capital. The definitions of HR capital proposed by Bollen *et al.* (2005) and Kaplan and Norton (2004) were provided to the participants so as to evaluate the relevance of each of the items to one of the five elements of HR capital. The five elements of HR capital include the following: employee competencies (ability, skills, attitudes, and expertise for organizational performance), company-specific skills developed through training, and development leadership practices to motivate, engage, and promote innovation and risk taking behavior. To make the item assessment process as cognitively simple as possible for the participants, the instructions requested the participants to place an "X" in one of the five columns (five elements of HR capital) to categorize each of the pilot questionnaire item based on the individual competencies (Bollen *et al.*, 2005) and leadership competencies (Kaplan and Norton, 2004) definitions provided. The items were presented on a three-point rating scale (irrelevant unsure and relevant) within each column representing an element of HR capital. Examples of the procedure to be followed were included on the pilot questionnaire that was provided to the participants.

Analyses and results. The mean score of the responses on each item provided by participants was calculated for each of the elements of HR capital. In order for an item to be retained, the item's mean had to pass the two tests. The item's highest mean had to correspond to the intended HR capital element. Subsequently to delete an item that did not discriminate between elements, that is, an item's highest mean had to be sufficiently different from the ratings obtained for the other elements. If the difference between the highest and the next highest mean of an item was less than 0.20 by Carlson *et al.* (2000), then the item was discarded.

Three items (i.e. 15, 25 and 12) were discarded because they failed to score highest mean on the respective HR capital elements. A further four more items (i.e. 11, 6, 23 and 21) were deleted because those items' mean failed to discriminate between the elements. The seven items discarded from further analysis in part-2 are indicated in Table I.

Method – part-2

Sample. The pilot questionnaire was distributed to a total of 225 individuals, each of whom at the time of distribution was a current or previous shareholder in at least one of the eight commercial banks investigated. A response rate of 64 percent was attained ($n = 145$). Of the 145 respondents to the pilot questionnaire, 65 percent respondents were male and 35 percent respondents were female. Respondents to the pilot questionnaire belong to different age groups: 13 percent of the participants were aged 25 years and younger, 38 percent were between 26 and 35 years, 24 percent were aged between 36 and 45 years, and another 25 percent participants were 46 years and above. In all, 53 percent participants were university graduates, 18 percent have completed tertiary and further education, and 29 percent have completed secondary education. Overall, 56 percent participants reported that they held shares in only one of the banks investigated, and the remaining 44 percent held shares in multiple banks.

Procedure. Both judgment sampling and snowball sampling were used to contact and invite participants to respond to the questionnaire. Invited participants were assured

Human resource capital (HRC) items	EFA ($n = 145$) F1	EFA ($n = 145$) F2	CFA ($n = 157$) F1	CFA ($n = 157$) F2
17. Workshops are used to improve employee productivity by encouraging them to broaden their perspective in relation to their work roles	0.860	0.135	0.712	
22. Managers are encouraged to facilitate employees who are proven and successful risk-takers	0.823	0.067	0.705	
16. Managers are empowered to motivate subordinates by offering employee salaries above the industry average	0.772	−0.015	0.750	
10. Managers encourage staff to practice self-confidence and to demonstrate leadership as a result of successful management styles	0.725	−0.066	0.748	
8. The company motivates less competitive employees by linking output to a highly competitive reward system	0.686	−0.088	0.680	
19. Providing managers with share options and other bonuses directly linked to the output levels of their departments and direct subordinates	0.672	0.035	0.589	
9. Managers are allowed to use flexibility with leave and other time allowances to control and encourage employee behavior	0.574	−0.242	0.701	
20. The company uses weekly statistical analysis of staff productivity to encourage employees to reset goals and targets	0.521	−0.301	0.702	
4. Managers build corporate trust and goodwill with their subordinates by negotiating difficult situations in an open environment	0.513	−0.223	0.651	
14. The careers of junior employees are developed through the formal mentoring by experienced staff	−0.100	−0.882		0.752
13. Providing managers with technical skills to decide on the level of training required to reduce employee skills gaps	−0.010	−0.811		0.801
24. In-house employee recruitment officers with complete knowledge of the firm's business are used to match new recruits to respective roles	−0.017	−0.787		0.681
2. The company encourages current employees with good performance results to nominate themselves for future management positions	0.170	−0.661		0.741
7. The company uses training and development to improve interpersonal communication and teamwork	0.067	−0.659		0.647
18. A formal performance appraisal program provides employees with constructive feedback and remedial intervention	0.167	−0.599		0.658
3. Training and development is used to improve the leadership qualities and styles of company managers[a]	*0.366*[a]	*−0.479*[a]		
1. The company attracts valuable employees, with industry-specific knowledge, from competitor firms[a]	*0.338*[a]	*−0.445*[a]		
5. Managers facilitate the creation of an organizational culture based on work teams in the pursuit of creating new products and services[a]	*0.326*[a]	*−0.421*[a]		
21. The company uses targeted marketing campaigns to potential recruits to show it values and the individual achievements of its star performers[b]				
23. Managers select, as supervisors, employees who demonstrate the ability to use their imagination to develop original ideas for their market[b]				
6. The company offers higher starting salaries than the industry average[b]				
11. The company hires the best-trained graduates in the field[b]				
12. Organizational synergy, which improves company output, is a result of a decentralized decision-making process[c]				
25. Managers are empowered to select employees who are creative and can make their own decisions without others help[c]				
15. External firms provide training to employees on product knowledge[c]				

Notes: [a]Factor loading failed to discriminate; [b]mean failed to discriminate between dimensions; [c]failed to score highest mean

Table I.
Human resource capital information scale items and validation

anonymity in that their identities and their responses would remain anonymous. Participants invited to reply to the pilot questionnaire included a group of shareholders of Australian Banking Sector Corporation (ABSC). Paper copies of the pilot questionnaire were given to family, friends, and colleagues of the researchers to complete and/or further

distribute to suitably eligible individuals who were either previous or current holders of ABSC shares. Each participant was provided with a sealed envelope containing the pilot questionnaire, a participant consent form, and a postage-paid reply envelope.

The pilot questionnaire developed in part-1 was administered to individual investors in any of the eight large commercial banks within the ABSC. The questionnaire comprised 18 items developed from the content adequacy analysis done in part 1. The following instruction was provided to participants "you are provided with information on a range of practices those public listed banks may use to highlight their human resource capital to investors. You are required to indicate how important you perceive these items are to understand human resource capital of a bank in which you have invested in stocks." A five-point Likert rating scale (1 – not important to 2 – very important) was used.

Analysis and results. The data collected were factor analyzed with an EFA applying an oblique rotation using IBM SPSS 19. The specific criteria used to extract factors were as follows: Kaiser's criterion where only factors with eigenvalues greater than 1.0 are retained, cumulative percentage of variance explained, and the scree plot of the factor eigenvalues stated. The factor loadings of the items are provided in Table I. Moreover, three items (3, 1 and 5) were removed after the first factor analysis of data because the factor loadings of these items did not differentiate well between the two factors.

Two factors were identified after the second factor analysis. The eigenvalues for the two factors were 7.4 and 1.6, respectively. The total variance explained by these two factors was 60.1 percent. Each item loaded on only one of the two factors. All the items had loadings greater than 0.51. The internal consistency of each of the two HR capital information dimensions was estimated with coefficientα. The coefficient α for employee engagement information dimension of HR capital was 0.90, and performance management information dimension was 0.84; both reliabilities exceeded the conventional level of acceptance of 0.70 for a new scale (Nunnally, 1978).

In naming the extracted factors from EFA, the recaptured item technique suggested by Meehl *et al.* (1971) was used. They suggested a three-stage process for naming factors at the post-analysis stage of EFA, which could reduce the subjectivity in factor naming. First, the nine items identified in factor-1 were split into five items in the first half and four items in the second, and the six items identified in factor-2 were split into three items each. Second, the researchers and two judges who were academic researchers in the field of strategic HRM were provided with the first half of the extracted items of the two factors. Each judge independently gave a set of three to four names to each of the factors based on the items provided. Subsequently, all the judges met face-to-face and finalized two appropriate names for each factor after deliberations. The two proposed names for factor-1 were employee value information and employee engagement information, and names such as performance management information and information on training for company-specific skills were proposed for factor-2. Finally, a second set of two judges (experienced in teaching HRM subjects at a university level for more than 15 years) was provided with the second half of the extracted items for the two factors, a standard academic definition for HR capital, and the proposed names for the two factors. The second set of judges was requested to identify independently the provided items of a factor to one of the two proposed names. There was an overwhelming agreement between the judges in identifying 92 percent of the items to employee engagement information as a name for the factor-1 and 94 percent of the items to performance management information as a name for the factor-2.

The items for factor-1 are well aligned with the definition of employee engagement "a positive fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli and Bakker, 2004, p. 294). Hence, it is appropriate to name factor-1 as "employee engagement information" as this factor reflects the information on employee

engagement practices used by organizations to highlight HR capital to their investors. There is a growing appeal among management practitioners and researchers in understanding employee engagement information due to claims that employee engagement improves bottom line results of businesses. For example, a global HR consulting firm (Aon Hewitt Worldwide, 2012, p. 6) indicates that based on their engagement research between 2008 and 2010, they found a strong correlation between employee engagement and financial performance of companies even during difficult financial conditions.

Performance management is an integrated set of planning and review procedures which cascades down through the organization to provide a link between each individual employees and the overall strategy of the organization (Rogers, 1994). The factor-2 items outline information on the emphasis of performance management (Mwita, 2000), such as employees have greater clarity about what their organization is trying to achieve, understand what is expected of them in their job, are entitled to regular feedback on how well they are doing, have continuous support from their managers, and have an opportunity to assess their overall performance achievements over a period of time. Hence, the items extracted in factor-2 fit well with the definition of performance management, and this factor provides information to investors about the practices companies use to link individual employees' performance to the overall strategy of the company.

In summary, the study-1 extracted two factors, employee engagement information with nine items and performance management information with six items, as dimensions of HR capital information that impact the bottom line of a company. These two factors were extracted based on content adequacy test in part-1 of the study, and subsequently, EFA was conducted to establish the dimension of HR capital information. This validated HR capital information questionnaire is used in study-2 to explore individual investors' schematic relationship between the perceived importance of HR capital information and use of such information in their stocks investment decisions.

Study-2: schema of HR capital information in investment intentions

Background and hypotheses

Shareholders' perceived importance of HR capital information. Daniel *et al.* (1998) analyzed evidence from a variety of cognitive psychological experiments and from surveys that demonstrated ways in which people overestimate their abilities in a variety of security market decision contexts to gain better return for their investments. They suggested that investors overestimate their abilities in share purchase decisions because of their cognitive biases such as overconfidence and biased self-attribution caused by public and private information (e.g. HR capital information). Chen *et al.* (2007) revealed in their study that overconfident investors with superior information and trading skills will utilize this ability by trading often to capture high returns. DeBondt and Thaler (1995) suggest that the confidence of the investors grew when public information is in agreement with the investors' perceived importance of that information.

Alwert *et al.* (2009) and Edvinsson and Malone (1997) argued that HR capital information provided in intellectual capital reports contributes to the improved transparency of organizations by allowing them to illustrate their unseen value and long-term development options. Furthermore, Bukh (2003) has presented the argument that there is a demand for the disclosure of intellectual capital information based on the fact that many organizations derive their success from intangibles, including know-how patents and skilled employees. In Spain, Sáenz (2005) demonstrated a positive relationship between HR capital indicators and the market-to-book value ratio of banking firms. However, in Australian (Guthrie *et al.*, 2000) and in Sri Lanka (Abeysekera and Guthrie, 2004), the researchers found that corporate reporting of intangibles is not wide spread, and where the intangible assets

are reported, it is not within a standardized framework as suggested by Sveiby (1997). Bontis (1998) in his initial research established a causal link between a company's intellectual capital, including HR capital information, and its business performance.

It is evident from the literature that there is growing interests among researchers to study the impact of HR capital information disclosure and share price company performance and market-to-book value (see Dumay and Cai, 2014). However, there is a gap in the literature on individual investors' perceived importance of HR capital information disclosed by companies and the use of it in their investment intention to buy ABSC stocks. Therefore, the following hypothesis is proposed to explore if the information on HR capital disclosure on the dimension of employee engagement and performance management influenced investors to overestimate their abilities in share purchase decisions and gain better return for their investments as proposed by cognitive biases of overconfidence and biased self-attribution (see Figure 1):

H1. Individual shareholders are likely to use the importance of the HR capital dimensions of employee engagement and performance management information in their intentions to buy ABSC stocks.

Organizations with a high degree of intangible assets are also those that are more often speculated on and as a result have highly volatile share prices. This is explained initially by highlighting the relationship between intellectual capital and organizational performance and subsequently on share volatility. Cabrita and Bontis (2008) conducted a study on Portuguese banks and found that there was a marginal impact of elements of intellectual capital on organizational performance. Furthermore, Chen *et al.* (2005) found from a study in Taiwan that firms' intellectual capital has a positive impact on market value and financial performance, and hence fuels speculation and share price volatility. To control the speculation and resultant volatility of share prices, information on intangibles, including HR capital, is provided by a number of corporations (Williams, 2001). In Europe, Skandia Group and its intellectual capital accounts have become the benchmark example for corporations such as Allianz (Rimmel, 2003). There is, however, a risk in over-disclosure of HR capital information in this area, which may increase volatility and perhaps compromise the competitive edge of a corporation. Dispositional effect of investors' cognitive bias (Shefrin and Statman, 1985) and prospect theory (Kahneman and Tversky, 1979) explains that the propensity to avoid regret and seek pride causes investors to be predisposed to holding on to stocks for too long which is also one of the reasons for reduced market volatility. Recently, Kaustia (2010) found that the dispositional effect is a positive effect where investors hold on to stocks to achieve high deviations from the stock purchase price and not about holding stocks to ride losses. Hence, in this study, the dispositional effect bias is related to holding on to stocks for better future price appreciation and not holding to ride losses.

The reverse dispositional effect bias indicates that investors often use intangible information including HR capital to sell stocks that have performed well or to correct an overreaction to share market (Talpsepp, 2011). It is evident in the literature that intellectual capital information of public listed companies does influence investors' investment decision to "hold on to" and "sell" stocks in the market based on dispositional effect and reverse dispositional effect bias, respectively. However, a gap in the literature exist to understand in particular individual investors' schema of importance of HR capital dimension of employee engagement information and performance management information has on investors' perception on decision to sell stocks. Hence, the following hypotheses are proposed to add value to the use of dispositional effect and reverse dispositional effect bias in the field of strategic HRM and behavioral finance to understand individual investors' perceived

importance of information on HR capital dimensions have on their perceived investment decision to hold on to and sell stocks (see Figure 1):

H2. Individual shareholders are likely to use the importance of information on the HR capital dimensions of employee engagement and performance management in their intention to "hold on to" ABSC stocks.

H3. Individual shareholders are likely to use the importance of information on the HR capital dimensions of employee engagement and performance management in their intention to "sell" ABSC stocks.

Source of advice on HR capital information and stock investment decision. Daniel *et al.* (1998) proposed that the securities market under- and overreactions are based on investor overconfidence about the precision of private information but not on publication information that are received by all. Furthermore, they suggested that the confidence of investors grew when public information is in agreement with the investor's private information, but the confidence level does not fall commensurately when public information contradicts with his/her private information. Odean (1998) revealed that securities market price volatility is caused by investors' overconfidence due to the private information received. Therefore, *H4* and *H5* are proposed to test the direct effect of private (stock brokers financial analyst, etc.) and public (newspaper and investment magazine, etc.) sources of advice on investors' intentions to use such information in their ABSC stocks investment decisions. Subsequently, *H6* is proposed to test the moderation effect of private (stock brokers financial analyst, etc.) and public (newspaper and investment magazine, etc.) sources of advice on the relationship between individual shareholders' perception of the importance of information on HR capital dimensions and their intentions to use of such information in their ABSC stocks investment decisions:

H4. Individual shareholders are likely to use private advice on HR capital information in their intention to "buy," "hold on to" and "sell" ABSC stocks.

H5. Individual shareholders are likely to use public advice on HR capital information in their intention to "buy," "hold on to" and "sell" ABSC stocks.

H6. Advice on HR capital information received from public and public sources is likely to moderate the relationship between individual shareholders' perception of the importance of the HR capital dimensions of employee engagement and performance management information and their intention to use such information to "buy," "hold on to" and "sell" ABSC stocks.

In summary, Figure 1 provides a schematic representation of the study variables and the proposed hypotheses for the study.

Method

Sample. The questionnaire was distributed and forwarded to a total of 250 individuals, each of whom at the time of distribution was a current or previous shareholder in at least one of the eight ABSCs investigated. A response rate of 63 percent was attained ($n = 157$) for this part of the research study. Overall, there were 68 percent males and 32 percent females, with majority (37 percent) of them being in the age group of 26-45 years, and 53 percent indicated they have a university-level education.

Measure. The questionnaire consists of four parts. The first part the preliminary section includes definitions of HR capital for the respondents to refer to. The first part is also devised to extract demographic information and information on the banking sector shareholdings of respondents. Respondents were asked to indicate their gender, age, level of education, and

Australian banking sector shares held either currently or previously. The second part of the questionnaire included the HR capital information questionnaire (15 items) which was developed in study-1. Respondents were asked to read each statement in the second part of the questionnaire and to indicate the perceived importance of each statement in understanding human capital information disclosure of a bank or banks in which they currently own stocks using the five-point Likert scale provided (1 – not important and 5 – very important).

The third part consists of three items, and they were designed to extract information on whether respondent has intentions to use HR capital information in making decisions regarding buying, holding on to, and selling shares, respectively. These three items were measured on a dichotomous scale (yes and no) because the measure relates the individual investor intentions to use or not use the information for buying, holding on to, or selling Australian banking sector shares. Morrison (1979) conducted a study on comparing dichotomous rating based on the binomial model with multi-rating scales that are used to establish the relationship between purchase intentions and purchase decision. He found that the binomial response for purchase intention is a good approximation for purchase decision than the multi-rating scales because the variation in multi-rating scale is all "noise" or "error" component in estimating the true intention. Hence, in this study, the dichotomous rating scale was used to measure individual investor intentions to use HR capital information in their investment decision.

The fourth part of the questionnaire was asked to indicate the importance of the sources of investment advice for their investment decisions. This part was based on the list of information sources such as financial planner/advisor stock broker, family and friends, newspaper, magazines, etc., which were referred to in the ASX Shareholder Survey 2006 (Australian Stock Exchange, 2007). Each of the information source included in this item was measured using a three-point Likert scale (1 – not important to 3 – very important).

Procedure. The study was dependent on snowball sampling to augment the sample size. Goo *et al.* (2010) in a similar study used snowball sampling to explore the behavior models of individual investors' disposition effect on investment decision. The data were collected using researchers' network of friends and family and the researcher's professional colleagues voluntarily to take part in contacting suitable participants from ABSC shareholders. Invited participants were assured anonymity in that their identities and their responses would remain anonymous. Participants invited to reply to the HR capital dimension information questionnaire included a group of shareholders of ABSC. Paper copies of the questionnaire were given to family, friends, and colleagues of the researchers to complete and/or further distribute to suitably eligible individuals those who were either previous or current holders of ABSC shares. Each participant was provided with a sealed envelope containing the pilot questionnaire, a participant consent form, and a postage-paid reply envelope. The following instruction was provided to participants "you are provided with information on a range of practices those public listed banking corporations may use to highlight their human resource capital to investors. You are required to indicate how important are these items for you to understand human resource capital of a bank in the second part of the questionnaire. In the third part of the questionnaire, indicate your intentions to use human capital information in your decision to 'buy', 'hold on to', and 'sell' in banking sector stocks. Finally indicate the importance to the list of sources of investment advice in your investment decisions".

Results

Confirmatory factor analysis (CFA) for HR capital information scale dimensionality

To validate the dimensionality of the HR capital information scale, the items were assessed with CFA using a sample of 157 participants. Subsequently, the reliability of the scale was examined. CFA was used to assess a two-factor model where each of the two categories were

represented separately using AMOS 19 so as to test unidimensionality and convergent validity of the HR capital information dimension of employee engagement and performance management (Venkatraman and Grant, 1986). Two sets of statistics were used for the verification of unidimensionality and convergent validity (Byrne, 2006). These include the significance of the factor loadings and the overall acceptability of the measurement model in terms of its fit to the data using a χ^2 test and adjunct fit indexes of CFI and RMSEA.

The factor loadings of CFA are shown in Table I which ranges between 0.65 and 0.82. CFA of the responses of the HR capital information questionnaire items suggested a good fit for two-factor structure of the data χ^2 (89, $n = 157$) = 157.2, $p < 0.001$, CFI = 0.93, RMSEA = 0.01. Brown (2006) suggest that CFI ranges from 0 for a poor fit to 1 for a good fit, and the RMSEA value of about 0.05 or less would indicate a close fit of the model in relation to the degrees of freedom. Hence, the findings of CFI = 0.93 and RMSEA = 0.01 suggest a good fit for the two-factor structure for HR capital dimension information. The coefficient α for employee engagement information dimension of HR capital was 0.90, and performance management information dimension was 0.87; both reliabilities exceeded the conventional level of acceptance of 0.70 (Nunnally, 1978).

The schematic relationship between the dimensions of HR capital information and the stock transaction intentions A logistic model was fitted to the data to test *H1-H6* regarding the direct and moderated relationships between the likelihood that individual investors would use perceived importance of information on the dimensions of HR capital in their intentions on stock buy, hold on to, and selling decisions. Logistic regression is well suited for testing hypotheses about relationships between a categorical outcome (dependent) variable and one or more categorical or continuous predictor variables (Peng *et al.*, 2002). Logistic regression analysis was conducted using IBM SPSS version 19. Table II shows the descriptive statistics for logistic regression variables.

According to the model, the log of odds for the relationship between employee engagement and performance management dimensions of HR capital information and individual investors' intention to use such information in buying stocks provided in Table III indicates that it is not significant based on the Wald's χ^2 value. Hence, *H1* was rejected. Furthermore, it was found regarding *H3* that there is a relationship between the importance of HR capital dimension information and intention to use such information in individual investors' decision to sell ABSC shares based on the model fit by Likelihood ratio test (χ^2 (2, $n = 157$) = 7.087; $p < 0.05$). However, the odds ratios for the predictor variables (dimensions of HR capital information) were not significant based on Wald's χ^2 value. Hence, *H3* was also rejected.

In testing *H2*, the model fit based on the Likelihood ratio test is significant (χ^2 (2, $n = 157$) = 6.070, $p < 0.05$), and it suggests that the importance of dimensions of HR capital information significantly can predict individual investors' intention to hold on to ABSC shares. It was found that individual investors' perceived importance on performance

	Yes	No	Predicted overall correct %	Mean	SD
Intention to use HRC information to buy stocks	93	64	68		
Intention to use HRC information to hold to stocks	58	99	65		
Intention to use HRC information to sell stocks	68	89	63		
Employee engagement				3.716	0.763
Performance management				3.900	0.662
Source of advice – private				2.062	0.498
Source of advice – public				2.009	0.421

Note: $n = 157$

Table II.
Descriptive statistics for logistic regression variables

Predictor variables	Regression coefficient β	Log of odds ratio Exp(B)	Wald's χ^2	Model fit χ^2 value (df)	Model fit χ^2 value change (df)
Dependent variable: intention to use HRC information in "buying" stocks (yes – 1 and no – 0)					
Step-1: initial model with human resource capital (HRC) dimension information (*H1*)					
Employee engagement (EE)	−0.013	0.987	0.001	5.019 (2)	
Performance management (PM)	0.667	1.948	2.124		
Step-2: revised model with HRC information dimensions and source of advice					
Employee engagement	0.192	1.211	0.199	6.391 (4)	1.372 (2)
Performance management	0.677	1.967	2.134		
Source of advice (private) SA-Pr	−0.399	0.671	0.610		
Source of advice(public) SA-Pub	−0.270	0.763	0.212		
Step-3: revised model with moderations (*H6*)					
Employee engagement	−1.263	0.283	0.309	7.501 (8)	1.110 (4)
Performance management	1.270	3.559	0.319		
Source of advice (private) SA-Pr (*H4*)	−0.881	0.414	0.106		
Source of advice (public) SA-Pub (*H5*)	−1.547	0.213	0.241		
EE × SA-Pr	−0.062	0.940	0.187		
EE × SA-Pub	0.162	1.176	0.931		
PM × SA-Pr	0.066	1.068	0.280		
PM × SA-Pub	−0.104	0.901	0.478		
Dependent variable: intention to use HRC information in "hold on to" stocks (yes – 1 and no – 0)					
Step-1: initial model with HRC dimension information (*H2*)					
Employee engagement (EE)	−0.467	0.627	1.404	6.070 (2)*	
Performance management (PM)	1.110*	3.034*	4.966*		
Step-2: revised model with HRC information dimensions and source of advice					
Employee engagement	0.169	0.844	0.140	10.107 (4)*	4.037 (2)
Performance management	1.201**	3.324**	5.526**		
Source of advice (private) SA-Pr (*H4*)	1.032*	1.356*	3.428*		
Source of advice(public) SA-Pub (*H5*)	0.169	1.185	0.073		
Step-3: revised model with moderations (*H6*)					
Employee engagement	−1.432	0.239	0.352	12.333 (8)*	2.226 (4)
Performance management	3.967*	5.833*	1.710*		
Source of advice (private) SA-Pr	1.629	5.096	0.225		
Source of advice (public) SA-Pub	0.966	2.629	0.056		
EE × SA-Pr	0.140	1.150	0.848		
EE × SA-Pub	−0.055	0.947	0.095		
PM × SA-Pr	1.202*	1.817*	1.862*		
PM × SA-Pub	0.023	1.023	0.016		
Dependent variable: intention to use HRC information in "selling" stocks (yes – 1 and no – 0)					
Step-1: initial model with HRC dimension information (*H3*)					
Employee engagement (EE)	0.078	1.081	0.041	7.087 (2)*	
Performance management (PM)	0.768	2.156	2.541		
Step-2: revised model with HRC information dimensions and source of advice					
Employee engagement	−0.142	0.867	0.107	9.262* (4)	2.175 (2)
Performance management	0.833	2.301	2.913		
Source of advice (private) SA-Pr (*H4*)	−0.155	0.857	0.088		
Source of advice(public) SA-Pub (*H5*)	0.860*	2.962*	2.009*		
Step-3: revised model with moderations (*H6*)					
Employee engagement	0.000	1.000	0.000	10.161 (8)	0.899 (4)
Performance management	−0.336	0.714	0.019		
Source of advice (private) SA-Pr	0.863	2.370	0.087		
Source of advice (public) SA-Pub	−2.320	0.098	0.426		
EE × SA-Pr	−0.064	0.938	0.207		
EE × SA-Pub	0.057	1.058	0.113		
PM × SA-Pr	0.018	1.018	0.021		
PM × SA-Pub	0.058	1.060	0.144		

Notes: *$p < 0.05$ – p-values for model fit χ^2 value (df) is based on Likelihood ratio test; **$p < 0.01$ – p-values for regression coefficients and odds ratio are based on Wald's χ^2 statistic with df = 1

Table III.
Hierarchical logistic regression model of human resource capital information used in shares transaction intentions

management dimension of HR capital information is positively related to their intention to hold on to ABSC shares ($\beta = 1.110$, $p < 0.05$). Furthermore, individual investors are three times (odds ratio = 3.034, $p < 0.05$) more likely to use the importance of performance management information than odds of not using HR capital dimension information (95% CI = 1.14-8.05) in their intention to hold on to ABSC shares. The validity probability of predicting individual investors using the importance of performance management information in their intention to hold on to ABSC shares to not using is high (overall percentage of correct prediction, $n = 65$ percent) based on the observed and the predicted frequencies for individual investors' intention to hold on to ABSC shares.

Direct and moderation effect of source of advice on investors' intention on stock transactions

H4-H6, regarding advice received from private and public sources on HR capital information about six large Australian banks, have the likelihood to directly affect and also moderate the relationship between individual shareholders' perception of the importance of the HR capital dimensions of employee engagement and performance management information and the individual shareholders' intentions to use such information to buy, hold on to, and sell ABSC stocks were tested using hierarchical logistic regression. The following steps are used in conducting hierarchical logistic regression. Initially in step-1 of the hierarchical regression, individual investor's perceived importance of dimensions (employee engagement and performance management) of HR capital information was entered in the analysis. In step-2, the importance of sources of advice (private and public) was entered and followed by the moderation effect of two dimensions of HR capital information, and two sources of advice (private and public) were entered in step-3 of the analysis.

The direct effect of source of advice

The model fit χ^2 values shown in Table III based on the Likelihood ratio test for the direct effect of private and public sources of advice on HR capital information on investors' intention to "hold on to" and "sell" ABSC stocks, respectively, were significant. However, the log of odds based on the Wald's χ^2 value for the private advice is the only predictor variable of the model that was significant for investors' intention to "hold on to" shares. Hence, *H4* was partially accepted because except for the investors' intention to "hold on to" shares, there was no significant direct effect of private source of advice on "buying" and "selling" stocks.

It was interesting to note that in step-2 of the hierarchical logistic regression when private and public source of advice on HR capital information variables for the investors' intention to "sell" shares were entered into the analysis, the revised model to the basic model in step-1 emerged significant (χ^2 (4, $n = 157$) = 9.262, $p < 0.05$). The results indicated that individual investors are almost three times (odds ratio = 2.962, $p < 0.05$ at 95% CI = 1.04-6.05) more likely than odds of not to use public source of advice on HR capital information when their intentions to use such advice while selling ABSC stocks. However, the log of odds based on the Wald's χ^2 value for the public advice is the only predictor variable of the model that was significant for investors' intention to "selling" shares. Hence, *H5* was partially accepted, because except for the investors' intention to "selling" shares, there was no significant direct effect of public source of advice on "buying" and "hold on to" stocks.

The moderation effect of source of advice

The revised model fit for moderation effect of private and public sources of advice on HR capital information on the relationship between importance of HR capital information and using that

information to "hold on to" ABSC stocks was significant (χ^2 (8, $n = 157$) = 12.333, $p < 0.05$). It was found that only private source of advice on HR capital information was the only source of advice that significantly moderated investors' intention to "hold on to" ABSC shares ($\beta = 1.202$, $p < 0.05$). The validity probability of predicting individual investors using the importance of performance management information in their intention to hold on to ABSC shares to not using is high (overall percentage of correct prediction, $n = 65$ percent) based on the observed and the predicted frequencies for individual investors' intention to hold on to ABSC shares. Furthermore, individual investors are almost two times (odds ratio = 1.817, $p < 0.05$) more likely than odds of not to use private source of advice on HR capital information when they perceive that the performance management dimension of HR capital information (95% CI = 1.12-9.05) is important in their intention to hold on to ABSC shares. Hence, *H6* was also partially accepted because except for the investors' intention to "holding on to" shares there was no significant moderation effect of private and public sources of advice on "buying" and "selling" stocks.

Discussion

Findings and implications

This study attempted to explore the role of individual investors' perception of the importance of employee engagement and performance management dimensions of HR capital information and the use of such information in their intentions to purchase, hold on to, or sell ABSC stocks.

HR capital information and investors' dispositional bias

In our study individual investors have reported their schematic use of performance management dimension of HR capital information for their intention to holding on to ABSC shares. Individual investors are three times more likely to use performance management dimension of HR capital information than not use it to hold ABSC shares, and this clearly supports behavioral finance theory (Stracca, 2004) and not market efficiency theory (Malkiel, 2003). That is, according to behavioral finance theory, the performance management dimension of HR capital information can boost investors' dispositional effect bias and subsequently their intention to hold on to shares so that the shares have the potential to increase in value in future and investors could achieve better returns for their investments. This empirical finding supports the previous interview based study (Holland, 2006) that human resource capital information (e.g. recruitment training and education) about the non-management workforce obtained from executives of public listed companies in UK and reported had dynamic link in creating higher share value for those companies.

The study also found that the information relating to employee engagement and performance management dimensions of HR capital did not influence individual investors' intention to buy or to sell ABSC stocks. These findings did not support Chen *et al.* (2007) finding that overconfident investors with superior information will utilize this information by trading often to capture high returns for their investments. Furthermore, the findings did not support the theory of reverse dispositional effect bias of investors (Talpsepp, 2011) that suggests HR capital information will facilitate individual investors to sell "winners too soon." Therefore, the study findings contribute to strategic HRM by suggesting that the human capital information facilitates the propensity to avoid regrets in selling shares too early (dispositional effect bias) to achieve utility benefits in future which is different from the findings of financial information disclosure study conducted by Chen *et al.* (2007). That is, HR capital information influences investors to hold on to their stocks for future gains whereas favorable financial information disclosure leads to selling winners too soon.

Voluntary HR capital information disclosure and reduced market volatility

The positive relationship between the importance of performance management dimension of HR capital information and individual investors' intention to use that information in holding on to ABSC stocks supports the argument that HR capital information disclosure can reduce information risk associated with ABSC stocks so that it can reduce uncertainty in ABSC stocks' future performance and the stock price volatility. Burgman and Roos (2004) studied relevant intellectual capital (including HR capital) articles that reported company annual reports, opinions, government submissions and legislations. They suggested that comprehensive operational and intellectual capital reporting is essential for the stock exchanges as well as investment types such as mutual pension and hedge funds to reduce volatility of equity investment as the investment funds pursue and create pressure for corporate performance.

The study finding about investors using the importance of HR capital information for their intention to holding on to stocks instead of buying or selling stocks supports Burgman and Roos (2004) suggestion that voluntary disclosure of HR capital information by companies through operational reporting along with financial reporting will reduce equity investment volatility. Furthermore, the finding on the use of HR capital information for selling stock intention was not supported and hence there was no support to Brent *et al.*'s suggestion that individual investors use HR capital information for short selling of stocks as a method of hedging or arbitrage. Hence, this study has contributed to Australian banks by indicating that HR capital information reduces investment risks of ABSC and so does the speculative behavior and market volatility. The findings clearly indicate that banks have important reasons to understand individual investors' perceptions on human capital disclosure information to facilitate future value of the bank stocks and that will also give advantage to the bank to protect the value of the bank stocks during high market volatility and bearish market condition.

Private and public sources of advice on dispositional and reverse disposition effect biases

The analysis of the moderation effect of private and public sources of advice on HR capital information on the relationship between the importance of HR capital information dimensions and individual investors' intentions to use such information on buying, holding, or selling ABSC stocks highlights that private source of advice on HR capital information significantly influences individual investors' intention to hold on to ABSC stocks, that is, individual investors are almost six times more likely than not to use the performance management dimension of HR capital information in their intention to hold on to shares after receiving advice on HR capital information from private sources. This explorative study finding provides practical contributions to stock advisers that intellectual capital information (including HR capital information) collected by fund managers and financial planners, etc., through their own source and provided to individual investors will positively influence their perceptions and subsequently increase market value of the stocks (Burgman and Roos, 2004). Furthermore, the theoretical contribution of this finding to the strategic HRM and behavioral finance literature is that the private source of advice on HR capital information facilitates investors' dispositional effect bias to hold on to the stocks and not overconfidence bias to buy or reverse dispositional bias to sell stocks.

It is interesting to observe from the finding that the direct effect of public source of advice on HR capital information did have a significant effect on individual investors' intention to use such information to sell ABSC stocks. That is, it was found that investors are almost 3 times more likely than not to use public advice on HR capital information for their intention to sell ABSC stocks. This finding suggests that the dispositional effect bias of individual investor's investment behavior to hold on to ABSC stocks is based on the HR capital dimensions information received by the private source of advice. However, when the same information

is made available through the public sources, it influences investors' intention to subsequently sell those stocks. This finding contributes to the economic modeling of public information (Daniel *et al.*, 1998) that follows private information over a period of time may result in stronger share price correction of the investors' previous overreaction to private information or reverse disposition effect (Talpsepp, 2011). Therefore, the findings support the theory of efficient market which suggests that public listed shares are traded on their fair values on stock markets and that it is virtually impossible to manipulate the market value of shares because the share price correction happens over a period of time (Malkiel, 2003). It is evident from the findings that the public source of advice of HR capital information have reverse disposition effect on individual investors' investment decision depending on whether the private information precedes or contemporaneous with the public source of advice. This is a significant theoretical contribution toward understanding the role of private and public HR capital information in facilitating dispositional effect and reverse disposition effect, respectively. That is, in the behavioral finance literature, private advice on a company's strategies and financial performance influence overconfidence bias among investors and they use that bias to buy those stocks, whereas the private advice on HR capital influences investors' intention to hold on to the stocks. Therefore, future research should be able to validate that private advice on HR capital information creates dispositional effect bias and not overconfidence bias due to a company's financial information.

Strengths, limitations, and future research

This research performed to construct and validate the HR capital information scale as well as test the relationship between individual investors' perceived importance of HR capital information and their intentions to use such information in their investment intentions to buy, hold on to, or sell stocks has many strengths. First, the research consisted of three-stage process that provides a very thorough scale-development effort. Hence, the resulting HR capital information scale relating to HR capital information disclosure by corporations has been subjected to rigorous development and validation procedures. Second, strength of this research is that the empirical findings add value to the predominant theoretical research on the favorable impact of intellectual capital including HR capital information on investor psychology. Finally, past research finds that public legislation in Australia as in most countries does not mandate the disclosure of intellectual capital information including information relating to HR capital in corporate annual reports leading to deficiencies of disclosure on strategically important organizational assets (Guthrie *et al.*, 2005). However, this research has provided empirical evidence that corporations should voluntarily understand their individual investors' perceptions on HR capital dimensions information so as to reduce individual investors' behavior of short selling of stocks for share price volatility and arbitrage.

The study is not without limitations. First, the scale was validated on only two samples of individual investors in the ABSC. Additional validation of the scale across other sectors (e.g. IT health care life science media and entertainment) within the knowledge-based industries is needed to further establish the scale and provide generalizability. Finally, Dumay and Cai (2014) based on the review of literature in establishing the link between importance of intellectual capital measurement which includes HR capital and real benefits to companies found that majority of research within the intellectual capital measurement field is based on company's annual reports and that very little empirical research has been conducted using other sources of data. Considering the preliminary nature of this study on individual investors' perception of importance of HR information disclosure from strategic HRM and behavioral finance perspectives, the results should be viewed as hypothesis-generating observations until they are confirmed by other studies.

Future research should measure investors' cognitive biases such as overconfidence (Forbes, 2005), dispositional bias (Kaustia, 2010), and reverse dispositional bias (Talpsepp, 2011)

and then moderate it on the relationship between HR capital information and investors' intention to use that information in stock transaction decisions. This future study could provide empirical evidence for the role of HR capital information on cognitive bias which subsequently impacts investors' stock transaction decision. Second, future research need to focus on the impact of HR capital information on investors "actual" decision behavior to hold on to stocks when they receive advice from private source is based on the dispositional effect bias and sell stocks (reverse dispositional effect) when the same information become available through the public source using longitudinal data. This would help to confirm individual investors' overreaction to private information and the correction phase of an investment decision cycle. It will be interesting to explore in future research to clarify that individual investors "actual" decision to hold on to stocks based on their perceived importance of HR capital information in creating future value and their decision is not influenced by tax motivation. Brent *et al.* (1990) have suggested that investors hold on to their shares to delay tax recognition of gains or losses.

Finally, future research should also explore if the HR capital information dimensions and sources of advice to investors are universal elements of investors' transaction decision or vary in different countries. This will help generalize the study findings to other developed and developing economies. All these suggestions and more may entice future research to explore the growing interests in understanding investors' psychology from the strategic HRM and behavioral finance perspectives. It is hoped that when researchers set out their journey to explore these issues in the future, the scale developed and validated in this study will be used to measure HR capital information scale.

Conclusion

The findings of this explorative study from the strategic HRM and behavioral finance perspectives highlight that the individual investors' perception on the importance of performance management dimension of HR capital information has varied impacts on their intentions to use such information in investment decisions to buy, hold on to or sell stocks. The study findings indicate that HR capital disclosure information has different impacts on individual investors' cognitive biases compared to published information from the behavioral finance literature. For example, in this study, there is no support for overconfidence and self-attribution biases to buy shares and also to reverse dispositional effect bias to sell shares while using HR capital information. However, the information disclosure has the disposition effect on investors' intention to hold on to stocks to avoid regrets for selling winners too early. Hence, this study has made important theoretical contributions to the strategic HRM and behavioral finance literature to highlight that perceived importance of HR capital information facilitates individual investors' dispositional effect bias to hold on to their stocks so as to appreciate in future value and reduce equity investment volatility. Furthermore, the finding also has practical implications for Australian banks to facilitate voluntarily disclosure of HR capital information to individual investors so that investors do not dump Australian bank stocks during "bearish" share market condition.

Finally, private source of advice on HR capital information facilitates individual investors' dispositional bias to hold on to shares so as to reduce share price volatility which supports dispositional bias of behavioral finance theory. Furthermore, public information that follows private information on HR capital dimensions triggers the sale of stocks that the investors are holding on to due to reverse dispositional effect bias of behavioral finance theory. Therefore, the sequence of private and public sources of advice on HR capital information has reverse disposition effect on individual investors' investment decisions. Hence, the study findings relating to the dispositional and reverse dispositional biases depend on the sequence of private and public advice on HR capital information made available to investors, which is another important theoretical contribution to the strategic HRM and behavioral finance literature.

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