Chapter 3 THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

3.0 Introduction
This chapter discusses the theories related to the study, which are the agency theory, resource dependence theory, and behavioural decision theory, to support the hypotheses development relating to research questions identified in Chapter 2 and 3. An appropriate theoretical framework is developed to support hypotheses development.

3.1 Theories in Corporate Governance
Three theories are drawn upon in this study; agency theory, resource dependence theory and behavioural decision theory. Agency theory is found to be relevant to the study, because it explains the audit committee, which functions as a monitoring mechanism to reduce agency costs (Menon and Williams, 1994). Whereas, resource dependence theory explains the board’s function as experts, and behavioural decision theory is used to identify measures of experts.

3.1.1 Agency Theory (AT)
This research uses an agency theory (AT) framework to examine the impact of having accounting certified, independent audit committee directors, representing the interest of corporate owners as a counter to the potential self interest of management. According to agency theory, separation between the owner and manager, which results in the separation between ownership and control, subsequently leads to agency costs. In order to mitigate the agency costs, contracts are written between the parties that Jensen and Meckling (1976) named the agency relationship. To explain further, Jensen and Meckling define the agency relationship as a contract under which one or more persons
(the principal(s)) engage another person (the agent) to perform some service on behalf, which involves delegating some decision-making authority to the agent. Fama and Jensen (1983b) theorise that the stockholders’ delegation of responsibility for internal control to the board of directors makes the board the apex of decision control within both large and small corporations. Therefore, they suggest that the composition of individuals who serve on the board of directors is an important factor in creating a board that is an effective monitor of management actions.

In relation to the existing study, the agent is represented by the board of directors, and the shareholders are the principals. Whilst, the audit committee, as part of the board of directors, is viewed as a monitoring device and used to prevent opportunistic behaviour and strengthen the quality of financial reporting, so as to mitigate agency conflicts between preparers of financial statements and outside shareholders (Piot, 2004). Monitoring decisions and actions of management is a principal responsibility of the board of directors. Menon and Williams (1994), use the agency theory perspective to examine the argument that firms with high agency costs will attempt to mitigate these costs by undertaking increased monitoring activity through the audit committee. According to Eisenhardt (1989), the agency theory is most relevant in situations where substantial goal conflict exists between the principal and agent, and opportunism by the agent is likely. Thus, the agency theory attempts to overcome the principal-agent conflicts where the principal may have to face the cost of monitoring the agent. Shapiro (2005) mentions that the agency theory dictates that principals will try to bridge the informational asymmetries by installing information systems and monitoring agents.

Fama and Jensen (1983b) hypothesise that the viability of the board as an internal control mechanism is enhanced by the inclusion of outside directors because outside
directors have an incentive to develop a reputation as experts in decision control since
the external market puts the price for their services according to their performance as
outside directors. They argue that the value of their human capital depends primarily on
their performance as internal decision managers in other organisations. Outside
directors use their directorships to signal to external markets for decision agents that (1)
they are decision experts, (2) they understand the importance of decision control, and
(3) they can work with such decision control systems (Beasley, 1996).

Figure 3.1 shows the audit committee as a monitoring mechanism that helps to mitigate
the agency issues between shareholders as principal, and preparers as agent.

![Figure 3.1 Agency Theory](image)

*Figure 3.1 Agency Theory*  
*Sources: Jensen and Meckling (1976), Fama and Jensen (1983b) and Piot (2004).*

The agency relationship theorises that the presence of independent directors with
specific financial training and experience will reduce the incidence of management
irregularities or fraud as in Rager (2004). The underlying assumption is that the
directors with accounting and/or finance background are more likely to be aware of the
financial representation activities than directors without such background. While in Kalbers and Fogarty (1993), it was noted that audit committee members with skills in accounting and finance, as well as knowledge of the company and industry, could contribute to the effectiveness of the committee.

3.1.2 Resource Dependence Theory (RDT)

Resource dependence theory focuses on the interdependence between organisations and their external environment that control important resources. In this perspective, the board members provide resources, and board composition related directly to the ability of the board to bring resources to the firm (Pfeffer, 1972).

This theory is premised on a view of an organisation as an open system that is dependent on external resources for survival, and that the resulting uncertainties pose significant challenges and costs to the organisations (Pfeffer, 1972). In the context of corporate governance, the organisation is likely to be more successful in attracting resources to the extent that the board is composed in such a way that it represents the social context in which the organisation is embedded (Hillman and Dalziel, 2003; Hillman et al., 2009). It is posited that an organisation is likely to be more successful in getting resources to the extent that it enjoys the support of the community in which it operates (Pfeffer, 1973; Arthurs et al., 2009; Hillman et al., 2009).

RDT recognises the influence of external factors on organisational behaviour and, although constrained by their context, managers can act to reduce environmental uncertainty and dependence (Hillman et al., 2009). RDT focuses on players outside the company (Rovers, 2009), and considers the organisation’s use of board of directors as a vehicle for dealing with problems of external interdependence and uncertainty, resulting
from its exchange of resources with important external organisation (Pfeffer, 1972), whereby, organisations that move from an optimal or preferred structure in their board of directors, tend to be significantly less profitable, than those do not. Few studies have adopted RDT, such as in the field of human capital (Arthurs et al., 2009; directors and performance (Dalton et al., 1999; Hillman and Dalziel, 2003; Ong and Wan, 2007), directors’ gender (Hillman et al., 2007; Rovers, 2009), directors and environmental change (Hillman et al., 2000), and organisational life cycle (Bonn and Pettigrew, 2009).

RDT argues that diversity could improve independence, since people with different gender, ethnicity or cultural background might ask questions that would not be posed by directors with more traditional background (Rovers, 2009). Since board of directors are a primary linkage mechanism for connecting a firm with sources of external dependency (Hillman et al., 2007) hence, by selecting a director with valuable skills, influence, or connections to external sources of dependency, the firm can reduce dependency and gain valuable resources. Further, treating board of directors as decision making groups and drawing in existing knowledge of board of directors and group dynamic, will assist boards to perform more effectively (Ong and Wan, 2008).

Hillman and Dalziel (2003) categorised sources from board’s linkages such as expertise, skills, knowledge and reputation, which are considered as directors’ human capital. They examined the relationship between the board as a provider of resources, and firms’ performance. Their primary concern was board capital that consist of: (1) human capital such as expertise, experience, reputation and (2) relational capital such as network of ties to other firms and external organisation.
In resource dependence theory, the board functions as a link between the firm and external resources. It is through boards that expertise and experience are brought into the firms. The study focuses on expertise is a unique complement to RDT on occupational and functional difference among directors. RDT provides useful theoretical perspective on directors’ expertise as a resource dependence link, such as affiliated directors (Dalton et al., 1999), and associates with the firms’ ability to extract critical resources from an environment. Such a perspective has not been extensively researched in corporate governance extant literature.

3.1.3 Behavioural Decision Theory (BDT)

Behavioural decision theory is explained with the expert’s literature and information processing theory, because they are indirectly related to cognitive psychology. Hence, this section explains how an expert is determined, in the context of cognitive psychology as shown by prior literature since cognitive psychology originally being derived from a group of mental processes generally termed ‘cognition’. Cognition, includes human activities such as; remembering, deciding, reasoning, classifying, planning and many more. Cognitive psychology (CP), thus refers to studies involving such activities and their benchmarking. Therefore, studies regarding these activities and standards to which they are taken to conform, is cognitive psychology (Harre, 2002). Studies in CP, attempt to explain why we identify a person an expert (Solso, 1995) and one of the major objectives of cognitive psychology is to provide precise accounts of the internal processes that are involved in performing cognitive tasks (Eysenck, 1993). This internal processes relate to the way people access and use information, and is viewed as the human cognitive system that has input, storage, throughput and output (Gavin, 1998).
Subsequently, the information processing theory explains the information storage, and information use of experts (see Bedard and Graham, 1994; Bonner and Walker, 1994; Libby and Luft, 1993). In general, research regarding experts investigates the differences between experts and non experts (novices) in various aspects such as in performance and decision processes (Anderson, 2000), and knowledge structure and organisation (Bedard and Chi, 1993). However, studies also examine various aspects of cognitive processes, such as decision making and problem solving (Bonner and Lewis, 1990), and also the skill acquisition and expertise (Choo, 1996; Bonner and Walker, 1994).

The knowledge or acquired skills that we learned or gained from the world has two distinct types of knowledge, declarative and procedural knowledge. Bedard and Graham (1994) in examining memory organisation of auditors, document that as auditors gain experience, their knowledge grows and becomes more organised in memory. Further, representation of knowledge is among the most important concepts in cognitive psychology (Solso, 1995). Knowledge can be created or acquired through specific experiences and training (Bonner and Lewis, 1990). Choo (1996) found that auditors’ knowledge content in a going concern task differs by the extent of their knowledge distinctiveness, abstractness, and contingency for the task. Thus, these knowledge differences, which produce performance differences, may be observed from auditors’ cognitive scripts developed through repeated exposure to the task. It suggests that repeated exposure or practice could result in a different outcome to the performance of the auditor. Needless to say, experience improves audit outcome.
Experts are people who have unusual cognitive abilities (Solso, 1995). Prior studies regarding the attributes of an expert were carried out by Abdolmohammadi and Shantaeu (1992) and Abdolmohammadi et al., (2004), found that current knowledge was rated as “extremely important”, while problem solver and experience, were rated as “very important”, and knowledge, experience and intelligence, were ranked important.

An expert is a person who had acquired specific experiences and training, hence has the knowledge and innate ability to provide better explanation than novices, or an inexperienced person. The knowledge gained through practices and experiences important attributes of an expert. Previous studies tested theories of cognition that were borrowed from the general psychology literature following designs that were used to study experts in domains such as chess and physics (Bedard and Graham, 1994) and sales people (Sherperd and Rentz, 1990), medical competencies (Patel et al., 2000), marketing management (Hackley, 1999), and anaesthetists (Smith et al., 2006). However, studies in the accounting domain are limited.

In the accounting literature, Patel and Day (1996) investigate the influence of cognitive style on the understanding of a professional accounting pronouncement by accounting students, and provides insights into the human mind by examining the interaction between cognitive styles and understandability within an accounting pronouncement context. It actually investigates the influence of field dependence or independence cognitive style on understandability.

3.2 The Experts

In the experts literature, Cornford and Athanasou (1995) describe that experts in serious professional fields come to be recognised by the reasonably skilled peers with whom
they work, generally, over extended periods of time involving significant, complex, individual feats over many instances involving performance on different problems. It is shown that relative to novices (non-experts), experts have more complete knowledge, better cross referencing and memory organisation, and they have richer decision strategies, as well as a more appropriate mechanism for appraising such strategies (Busch, 1997). Thus, experts have been defined as someone having high levels of procedural knowledge and skills (knowing how), declarative knowledge (knowing what) and contextual flexibility (knowing when and where) (Atkinson and Tawse, 2007). Tan (1997) defines experts as someone who possesses qualities and attributes that account for their outstanding performances.

Consequently, in order to become an expert a person needs to learn declarative and procedural domain knowledge, and refine that knowledge with practice (Bedard and Chi, 1993). Bonner and Lewis (1990) examine the degree to which cross-sectional variation in judgment performance in four audit tasks could be explained by measures of knowledge and ability, have been identified in the expertise literature. Their study was expanded further by Libby and Tan (1994) when they include experience as the new input, together with the existing knowledge and mental ability.

Development of expertise is characterised by a cumulative and regular improvement in knowledge and skills, which culminates in the optimal performance of the expert (Patel et al., 2000). Bonner and Lewis (1990) came up with three types of knowledge, but suggest that not all types of knowledge are acquired equally by persons with a given amount of experience. The three types are (Bonner and Lewis, 1990):
➢ General domain knowledge, which is acquired by many people in a domain through instruction and experience. For instance, accountants have more knowledge in accounting to prepare the accounts.

➢ Subspecialty knowledge is acquired through formal instruction and experience, but only by persons in the subspecialty area, such as forensic accountants who have the knowledge to detect fraud. Knowledge specifically related to a subspecialty within a general domain can be important to expert performance.

➢ World knowledge. Although this is additional knowledge, it may be important for good performance in a particular domain. However, it is not necessarily acquired through domain instruction or experience. It is gained through individual life experiences and instruction and is not likely to be possessed equally by persons of equal experience.

Hence, experts are suggested to have acquired these three types of knowledge to performed better than the novices. Further, knowledge is the main thing that distinguishes between an expert and non expert, and is gained through work experience and education (qualification).

### 3.2.1 The Basis of Experts

Prior literature shows that, there are two guidelines identified as work experience and qualifications, to recognise experts (see Abdolmohammadi and Shanteau, 1992; Bedard and Chi, 1993; Libby and Tan, 1994; Choo, 1996; Abdolmohammadi et al., 2004). This is supported by the behavioural decision theory and experts’ literature as discussed earlier.
3.2.1.1 Work Experience

Work experience has been identified as the major contribution in most expertise literature (Bonner and Lewis, 1990; Abdolmohammadi and Shantaeu, 1992; Eysenck, 1993; Choo, 1996; Hertz and Schulz, 1999; McAulay et al. 1998) and is suggested to be among the attributes of a financial expert. The regulator literature, BRC (1999) requires significant previous work experience in finance and accounting. While, SOA (2002) requires it through experience and education as well as practice, however, the Smith Report (2003) only mentions recent and relevant experience.

CEOs and CFOs are internal strategic leaders who are directly responsible for the firm’s financial health. Arthau-day et al. (2006) state that regulatory bodies, view CEOs and CFOs as equally accountable for certifying the financial condition of the companies. Working as a CEO or other senior officer with financial oversight responsibilities, is among the mentioned criteria of an audit committee financial expert (BRC, 1999). Confidence increases when designated financial experts have accounting based expertise as opposed to supervisory based expertise. It is found that sophisticated financial statement users tend to categorise the source of designated financial expertise as either internally derived or externally derived. The SOA outlines working as a public accountant, auditor or principal financial officer, comptroller, or principal accounting officer of a listed company. However, the Smith Report (2003) only mentions professional accounting expertise.

Subsequently other than the positions, the types and field of work experience has been included, such as experience in finance and accounting (BRC, 1999), and detailed work experience as mentioned by SOA. Where, “experience in preparation or auditing of financial statements of generally comparable issuers and the application of such
principles in connection with the accounting for estimates, accruals, and reserves, and also experience with internal accounting controls.” While the SEC Rules (SEC, 2003) require experience of actively supervising a principal financial officer, principal accounting officer, controller, public accountant, auditor or any person performing similar functions. SEC also requires the expert to have experience overseeing or assessing the performance of public companies or public accountants with respect to the preparation, auditing or evaluation of financial statements. The NZX mentions that experience as a CFO at an issuer for more than two years is required for an audit committee. This is supported by the KPMG Survey 2006 (KPMG, 2006), which included that being a CFO or holding a senior accounting or financial role for an audit committee is a desirable experience.

Experience forms the basis for acquiring the knowledge needed to become an expert (Abdulmohammadi and Shantaeu, 1992). Experience is a necessary part of the process of commitment, involvement and intimacy, which is central to practice (McAulay et al., 1998), wisdom is developed from intimate knowledge of the business gained over the years as the result of taking action and learning from experience. According to Ericsson and Charness (1994), outstanding performance results from incremental increases in knowledge and skill, which are due to the extensive effects of experience. This is also supported by Hertz and Schultz (1999) determined that repetitive practice contributes heavily to learning, when they found that practice increased the performance of participants in solving tasks. Therefore, they highlighted that procedural knowledge is needed to establish expertise, and practice generally resulted in increased accuracy. BRC recommends expertise as one that signifies past employment in finance, including having been a CEO, or other senior officer with financial oversight responsibilities. This is consistent in Carcello et al. (2006) where 21 percent of audit committee financial
experts had previously served as a CFO. In addition, Fich (2005) finds that outside CEOs are likely to occur in firms associated with strong corporate governance, and suggests that these CEOs are sources of unique expertise, industry contacts and business acumen. As noted by Perkins (1993), greater factual knowledge of a domain and greater understanding of how to use that knowledge combines to produce what is often called expertise.

3.2.1.2 Qualifications

In terms of qualification or education of the financial expert, BRC (1999) requires the person to have professional certification in accounting, while the SOA and SEC require an education as an accountant or auditor. In the Smith Report (2003) there is simply mention of professional accounting expertise, but in the Bursa Malaysia listing requirements no certain requirements were made available. However, at least one member of the audit committee is required to pass certain examinations as specified for accounting certified professionals and inclusive of CPA, CMA, CIA as a result of formal education, experience, professional ethics codes and continuing education requirements. Experience involves actual task performance (Rose et al., 2007), whereas, education contributes significantly to future earning capacity, suggesting that education is important to an individual’s ability (Anderson and Keys, 2007).

If the person has a professional qualification in accounting, this would cover the fundamental aspects of preparing financial statements. For instance, someone with a qualification from the Association of Chartered Certified Accountants (ACCA) would have passed courses on Corporate Reporting and Advanced Audit and Assurance, Paper 2 and Paper 7 of Part 3, the Professional level, respectively (Ernst and Young, 2008), and CPA Australia, on the paper Reporting and Professional Practice and Corporate
Governance and Accountability (CPA Australia, 2008). In addition, 19 percent of audit committee chairman comprise a CPA, and 12 percent had experience as auditors in public accounting firms, as documented in Carcello et al. (2006).

A chartered accountant in Malaysia should possess one of the following (from Accountants Act 1967, and MIA’s website):

(a) Passed any of the final examinations specified in Part I of the First Schedule of the Accountants Act 1967, and has not less than 3 years’ practical accounting experience in the service of a chartered accountant or in a Government department bank, insurance company, local authority or other commercial, financial, industrial or professional organisation or other undertaking approved by the MIA Council; and, or,

(b) Member of any of the recognised bodies specified in Part II of the First Schedule of Accountants Act 1967; and, or,

(c) Eligible to sit for and passed the MIA Qualifying Examination and has not less than 3 years practical accounting experience in the service of a chartered accountant or in Government department bank, insurance company, local authority or other commercial, financial, industrial or professional organisation or other undertaking approved by the MIA Council.

(Source: www.mia.org.my)

Thus, an accountant in Malaysia should have at least a degree in accounting, or be a member of any professional accounting body, and have at least three years working experience in accounting as shown above. Therefore, he or she should have a sound knowledge of accounting and auditing. Hence, accountants have a responsibility to identify situations where financial statement fraud has a greater likelihood of occurring.
(Beasley, 1996), supported by Qin (2006), that an accounting literate expert is more likely to secure a high quality of reported earnings than one without such expertise. Defond et al. (2005) argues that if the specialised skills possessed by accounting financial experts make directors more effective in executing the audit committee’s primary responsibilities of ensuring high quality financial reporting, markets would react favourably to the appointments. In a recent research by Krishnan and Visvanathan (2009) accounting expertise contributes to greater monitoring by the audit committee, whilst Gendron and Bedard (2006), document that as more professional accountants are on audit committees, the more effective the audit committee is in adhering to best practices.

3.3 The Research Framework and Hypotheses Development

Prior literature suggests that the presence of experienced and professional certified individuals as audit committee experts will increase the monitoring of management and reduce the incidence of management or reporting irregularities in the financial reporting processes. Thus, suggesting effective audit committees should improve internal control and act as a means of attenuating agency costs (Ho and Wong, 2001).
Figure 3.2 The Framework. Note: RDT=Resource Dependence Theory, BDT=Behavioural Decision Theory.

Figure 3.2, above shows the integration of the three theories discussed earlier; agency theory, resource dependence theory and behavioural decision theory. This shows the basic framework of the study. RDT is related to audit committee expertise literature, while agency theory is the rationale for establishing the audit committee. The focus on director is stipulated on the three theories connected to it. Whereby, in the agency theory, the director or audit committee, acts as a monitoring mechanism on the preparers of financial statements (Shapiro, 2005). The resource dependence theory the director acts as a link between the firm and external resources, and functions as the provider of resources (Pfeffer, 1972). Hillman et al. (2007) added that the board is also known as board capital, where directors as human capital providing expertise, experience and reputation to the organisation (Hillman and Dalziel, 2003). These expertise and experience are identified as criterias to be used to determine an experts explained by the behavioural decision theory.
As had been identified in section 3.2.1, basis of experts consist of experience and qualification. Since prior literature hinges on accounting professional qualification, the study extends qualification to academic qualification as well, supported by Kim et al. (2006) and Coulombe and Tremblay (2009). The study includes two important criteria as the variables of interest, which describe the concept of human capital that measures the skills, abilities and knowledge, and education and work experience being the most common dimensions of human capital. Subsequently, the study has three basic criteria for expertise as shown in Figure 3.3, supported by prior literature below.

1) **Professional qualification.** The BRC (1999), SOA (2002), SEC (2003), Smith Report (2003), MCCG (2007), Defond et al. (2005), and Qin (2006), have outlined this as one of the criteria for a financial expert.

2) **Academic qualification.** Bonner and Lewis (1990), Busch (1997), and Rose et al. (2007), have noted that experts learned through formalised training, and specialised skills that will make directors more effective. Consistent with Kim et al. (2006) who theorise that formal education allows individuals to gain knowledge and skills, and earn credentials valued by others in the business community.

3) **Managerial experience.** Abdolmohammadi and Shantaeu (1992), Choo (1996), Defond et al. (2005) and Carcello et al. (2006), noted that repetition to exposure and extensive effects of experience increases the knowledge and skills of experts. In addition Perkins (1993) noted that experienced managers' cognitive structures appear to be organised by marketing functions, where in the marketing discipline, managerial knowledge is a critical element in many situations. Thus,
this gives support to the study’s third variable of interest. Prior research show evidence of a strong positive relationship between the length of job experience and performance, where those managers with longer tenure achieved higher performance (McEnrue, 1988), supported by Kor (2003), that past managerial experience contributes to the competence of the top management team.

Prior literature examines financial experts based on the SEC definitions (Defond et al., 2005), or “each member of the audit committee shall be financially literate, as such qualification is interpreted by the company’s Board of Directors in its business judgment, or must become financially literate within a reasonable period of time after his or her appointment to the audit committee” (Coates et al., 2007, p176). Subsequently, Krishnan and Visvanathan (2008) expands financial experts into three separate components; accounting financial experts, non-accounting financial experts, and non-financial experts.

Fama and Jensen (1983b) suggested that the value of their human capital depends primarily on their performance as internal decision managers in other organisations, and outside directors use their directorships to signal to external markets or decision agents that; (1) they are decision experts, (2) they understand the importance of decision control, and (3) they can work with such decision control systems (Beasley, 1996). And this is supported by Kim et al. (2006), who documented that education and managerial experience promote entrepreneurial attempts.

Following the discussion above, the first research question is answered; whereby three fundamentals criteria are developed that could be used to measure expertise that are relevant to the Malaysian governance scenario. Subsequently, to answer research
question two; is there a relationship between these audit committee experts with financial reporting quality, the following hypotheses are derived supported by the agency theories, RDT and BDT. In the agency theory, the agency relationship theorises that the presence of independent directors with specific financial training and experience will reduce the incidence of management irregularities or fraud (Rager, 2004). Further, RDT assumes, directors link firms to the external resources, such as expertise and experience that they gained from external environment (whereby expertise and experience as had been identified from BDT earlier). Consequential to having a financial expert on the board, the expert will review internal audit proposals (Read and Raghunandan, 2001), thus, they are more willing to investigate accounting irregularities. Furthermore, previous experience in accounting and auditing will increase the accuracy of their investigation, and generate better corporate financial reporting quality. Hence, directors with experiences and expertise, may help to mitigate the agency costs that may arise between the managers and the stakeholders. The two research questions on audit committee experts and financial reporting quality will be tested in the following hypotheses, following the three types of experts; accounting affiliated audit committees, audit committee with postgraduate qualification and audit committee with managerial experience, and the association with fraudulent financial reporting as the first proxy of financial reporting quality.

3.3.1 Accounting Affiliates Audit Committee

The agency theory suggests that firms with higher agency costs will attempt to lower them by showing good quality financial reporting, possibly by appointing an accounting financial expert (Krishnan and Lee, 2009). In addition, Sharma et al. (2009), reveals that accounting experts on audit committees and greater board independence demand more frequent audit committee meetings when management adopts more aggressive
accounting practices, which suggests that accounting experts on audit committees and independent directors have an important role in monitoring. Furthermore, Chen et al. (2008) document that there is a positive association between professional training of assistants and financial performance in big sized firms when investigating the relationship between continuing professional education and firm’s performance. Beasley et al. (2009) found that accounting experts are more likely to state that their audit committee drives the content of information and discusses alternative accounting treatment under GAAP, as well as specific judgments, estimates and assumptions involved in implementing a new accounting policy. Hence the following hypotheses is conjectured.

H₁: Firms with a higher proportion of audit committee members with professional accounting affiliations, are less likely to experience fraudulent financial reporting.

3.3.2 Audit Committee with Postgraduate Qualification

Formal education allows individuals to gain knowledge and skills, earn credentials valued by others in the business community (Kim et al., 2006), and the higher skill level in the workforce increases the production capacity, where one year’s increase in average educational attainment of the workforce will lead to an increase in labour productivity growth of 0.3 percent point as documented by Canton (2007). Thus, lending support to earlier research by Singer and Bruhns (1991) which determined that higher academic qualifications can enhance a candidate’s chance of success in a position, and conjectures the next hypotheses.

H₂: Firms with a higher proportion of audit committee members with postgraduate qualification, are less likely to experience fraudulent financial reporting.
3.3.3 Audit Committee with Managerial Experience

There is a strong positive relationship between the length of job experience among early-career managers and their performance, whereby those with longer tenure in the role of manager achieve higher performance (McEnrue, 1988). Also, past managerial experience contributes to the competence of the top management team (Kor, 2003). Hence, the study expects that audit committee with previous experience in senior management positions such as CFO, group accountants or financial controllers, or relevant positions, will result in a lower occurrence of financial statement fraud, as documented in Dechow et al., (1996), and Beasley et al. (1999). Thus, the following hypotheses is conjectured.

H₃: Firms with audit committee members who have experiences in senior managerial positions, are less likely to experience fraudulent financial reporting.

3.4 Audit Committee Experts – An extension

Prior literature examines financial experts based on the SEC definitions (Defond et al., 2005), or “each member of the audit committee shall be financially literate, as such qualification is interpreted by the company’s board of directors in its business judgment, or must become financially literate within a reasonable period of time after his or her appointment to the audit committee” (Coates et al., 2007, p176), or as Krishnan and Visvanathan (2008) define it into three components (accounting financial experts, non accounting financial experts, and nonfinancial experts). Thus, the study extends the literature by including the academic qualification in terms of postgraduate qualification, in building hypotheses relating to audit committee experts as stated in Fama and Jensen (1983b) where, the value of their human capital depends primarily on their performance
as internal decision managers in other organisations. Also, outside directors use their
directorships to signal to external markets for decision agents that (1) they are decision
experts, (2) they understand the importance of decision control, and (3) they can work
with such decision control systems (Beasley, 1996). Subsequently, this is supported by
Kim et al. (2006) to address the importance of educations, since education and
managerial experience promote entrepreneurial attempts.


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<th>Audit Committee</th>
<th>Professional (BRC, 1999; SOA, 2002; SEC, 2003; Smith Report, 2003; MCCG, 2007; Defond et al., 2005; Qin, 2006)</th>
<th>Academic (Bonner and Lewis, 1990; Busch, 1997; Rose et al., 2007)</th>
<th>Experiences (Abdolmohammadi and Shantaeu, 1992; Choo, 1996; Defond et al., 2005; Carcello et al., 2006)</th>
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<td>(1) Financial Expert</td>
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<td>(2) Accounting Expert</td>
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<td>(3) Non-Accounting Professional Expert</td>
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<td>(4) Non-Accounting Expert</td>
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*Sources:* Compiled by the author.

From the Table 3.1, the study extends the literature by expanding the composition of audit committee experts from professionally qualified experts, academically qualified experts and experts with managerial experiences to the following four experts: (1) financial experts, (2) accounting experts, (3) non-accounting professional experts and (4) non-accounting experts. These experts are supported by the relevant literature:

(1) The financial expert, is a person with professional accounting certification, at least a postgraduate qualification, and experience in a senior managerial position. Supported by Bonner and Lewis (1990), Abdolmohammadi and Shantaeu (1992), Choo (1996), Busch (1997), BRC (1999), MCCG (2001), SOA


(3) The non-accounting professional expert is a person that is professionally affiliated with any professional body or organisation in any field such as Engineers, Architects, Lawyers and Mariners, and has at least a postgraduate qualification, and also experience in a senior managerial position. Supported by Bonner and Lewis (1990), Abdolmohammadi and Shantaeu (1992), Choo (1996), Busch (1997), Rose et al. (2007) and Carcello et al. (2006).


From Figure 3.4, there are four types of audit committees members defined as type A as an audit committee financial expert, type B, as audit committee accounting expert, type C as audit committee non-accounting professional expert, and type D as audit committee non-accounting expert. Based on Table 3.1 and Figure 3.3, an extension on
earlier framework (see Figure 3.2) is shown in Figure 3.4, to capture the four types of audit committees and conjecture further hypotheses. The four types of audit committee experts were derived from RDT and BDT theories similar to Figure 3.2. And all four types of experts, have at least an academic qualification and managerial experiences.

Based on prior literature and existing listing requirements, three requirements were gathered as shown in Figure 3.2 namely, work experience, academic qualifications and professional qualifications (Bonner and Lewis, 1990; Abdolmohammadi and Shantaeu, 1992; Choo, 1996; Busch, 1997; BRC, 1999; SOA, 2002; SEC, 2003; Smith Report, 2003; MCCG, 2007; Defond et al., 2005; Qin, 2006; Carcello et al., 2006; Rose et al., 2007). Four variables are hypothesised from these guidelines; audit committee financial expert, audit committee accounting expert, audit committee non-accounting professional expert, and audit committee non-accounting non-professional expert. These variables are shown as in Figure 3.4, in relation to the agency theory, RDT, and BDT, and further explained below.

These variables stem from the agency theory (Jensen and Meckling, 1976) that defines the agency relationship as a contract under which one or more persons, i.e. principals (stakeholders) engage another person such as an agent (audit committees) to act on their behalf. Thus, it is the duty of the audit committee to perform the task diligently with the skills, knowledge and expertise as suggested by the BDT that they have acquired, to produce quality financial reporting. And with respect to RDT, audit committee as provision of resources, provide expertise and experience in order for firms to gain competitive advantage especially in achieving quality financial reporting. Even though in the US the percentage of financial experts with a finance and accounting background is low (Carcello et al., 2006), in Malaysia it is a requirement of Bursa Malaysia to have
at least one audit committee member with a professional accounting qualification (Para 15.10(c) Bursa Malaysia Listing Requirements, 2005; MCCG, 2007).
Figure 3.3 Mutually Exclusive Audit Committee
Figure 3.4 An Extension of Expertise. *Note:* RDT=Resource Dependence Theory, BDT=Behavioural Decision Theory.
Finally, the characteristics of these experts are expected to mitigate the agency problem that arises from the managers’ ability to manipulate earnings reports. Furthermore, based on RDT, audit committee expertise should not only focus on accounting affiliated directors. They should also consist of directors with other relevant expertise as external resources that also represent the social context in which the organisation is embedded (Pfeffer, 1973). Subsequently, by extending the framework on expertise, the study extends prior literature (Baxter and Cotter, 2009; Owens-Jackson et al., 2009; Carcello et al., 2006), in examining the association of other director’s expertise such as non-accounting experts, with financial reporting quality proxied by earnings management.

Thus, there will be four hypotheses that test the type A, B, C, and D audit committee members, supported by Kim et al. (2006) who document that education and managerial experience promote entrepreneurial attempts. And Singer and Bruhns (1991) that found academic qualification can be a valid predictor of high level job performance when they examined the relative effect of work experience and academic qualification on selection interview decision making.

The agency theory suggests that firms with higher agency costs will attempt to lower them by showing good quality financial reporting, possibly by appointing an accounting financial expert (Krishnan and Lee, 2009). In addition, Sharma et al. (2009) reveal that accounting experts on audit committees and greater board independence demand more frequent audit committee meetings when management adopts more aggressive accounting practices, which suggests accounting experts on audit committees and independent directors have an important role in monitoring. In addition, prior studies such as Gendron and Bedard (2006) show that professional accountants on audit committees, are more effective in adhering to best practices, and accounting literate
expert is more likely to secure a high quality of reported earnings. Thus the study predicts that, the more experts in the audit committee, the better will be the monitoring and adherence to best practices. There will be four main hypotheses that are derived from the four extended audit committee experts; the financial expert, accounting expert, non-accounting professional expert and non-accounting expert as shown in Table 3.1 earlier. However, the following four hypotheses will test the research questions on audit committees’ experts with the association of earnings management as the second proxy of financial reporting quality.

3.4.1 Audit Committee Experts – A, B, C and D

The study expects that audit committee experts with prior experience in auditing, and managerial positions such as CFO, and, or CEO, will give a lower magnitude of earnings management (see Dechow *et al.*, 1996; Beasley *et al.*, 1999), where the existence of the audit committee is associated with better financial reporting quality (Read and Raghunandan, 2001). Furthermore, previous experience in accounting and auditing, will increase the accuracy (Hertz and Schultz, 1999) of their investigation, and generate better corporate financial reporting quality.

Prior studies in education and work, lends support in using education as a measure of experts, such as Trostel and Walker (2006), who found a positive relationship between education and work, and evidence by Anderson and Keys (2007) that attaining higher education increases, on average, the likelihood of being active in the labour market. Likewise, the presence of earnings management, and weak corporate governance may create a demand for better monitoring, which would suggest a positive association between these factors and the need for accounting financial experts (Krishnan and Lee, 2009).
Evidence show that accounting affiliated audit committees are associated with better financial reporting quality such as Abbott et al. (2007), Abbott et al. (2004), Lin et al. (2006), Defond et al. (2005) and Beasley (1996). As noted in Defond et al. (2005) specialised skills possessed by accounting financial experts make directors more effective in ensuring financial reporting quality. Furthermore, an effectively composed audit committee may help a firm avoid restatement as noted in Arthaud-day et al., (2006), and a negative relationship between restatement and audit committee inclusion of at least one member with financial expertise as reported in Abbott et al., (2004). Aier et al. (2005) document that companies that have CFOs with a CPA certification, an MBA or more experience as CFOs, are less likely to restate earnings.

Consistent with Conford and Athanasou (1995), Krishnan and Visvanathan (2009), Zhang et al. (2007), and Defond et al. (2005), where non-accounting experts are those who have experience in senior managerial positions, and are neither accounting nor non-accounting financial experts. In addition, “education and work experience are the most common dimensions of human capital used in labour force participation and have been associated with successful transitions into entrepreneurship” (Kim et al., 2006, p8). Kor (2003) documents that management experience at firm, team and industry levels adds value to entrepreneurial growth, and proves that prior industry management experience contributes to the competence of the top management team. Whereby, past managerial knowledge of the opportunities, threats, competition, and technologies specific to an industry is useful in creating entrepreneurial growth. This is supported further when investment bankers on audit committees improve the monitoring function of the audit committee as evidenced in Xie et al. (2003), and Baxter and Cotter (2009) who examine experts from a legal background, other than the accounting experts.
Thus, the study expects audit committee members with non-accounting professionals, with postgraduate qualification and senior managerial experience, will improve the monitoring function of the audit committee, and improve the financial reporting process. Consistent with RDT, the study assumes that experts from a non-accounting background, as external resources into the firm, supported by Krishnan and Visvanathan (2009), Zhang et al. (2007), and Defond et al. (2005), where non-accounting experts are those who have experience in senior managerial positions, are neither accounting or non-accounting financial experts. Thus, supported by prior research that shows a negative association between directors’ background and financial reporting quality, such as Aier et al. (2004), who document a negative association of companies that have CFOs with an MBA or more experience, to be less likely to restate earnings, while Xie et al. (2003) document earnings management is less likely to occur, or occur less often in firms whose boards have more independent outside directors and directors with company experience. Therefore, the study conjectures the following hypotheses.

H₄ : Firms with audit committee members with type A are negatively related to earnings management.

H₅ : Firms with audit committee members with type B are negatively related to earnings management.

H₆ : Firms with audit committee members with type C are negatively related to earnings management.

H₇ : Firms with audit committee members with type D are negatively related to earnings management.
3.5 Control Variables

Control variables are needed to take into consideration of other external factors that might influence the variables of interest, or rule out explanations for any patterns. Prior literature suggests control variables that are related to oversight mechanisms, in association with financial reporting (such as Palmrose, 1987; Beasley, 1996; Dechow et al., 1996; Beasley et al., 1999; Gul and Tsui, 2001; Gul et al., 2002; Gul et al., 2003; Abbott et al., 2004; Carcello and Nagy, 2004a; Lee et al., 2006).

3.5.1 Board Size

Beasley (1996) found a positive relationship between board’s size and fraudulent financial reporting. Cheng (2008) posits that the association between board size and the variability of corporate performance potentially arises because larger boards have communication or coordination problems as well as agency problems, and find that board size adversely affects the variability of corporate performance and value. The agency problems arise from dysfunctional norms of behaviour in the boardroom. Where, having more outside directors on boards should bring independent views to the company (Abdullah, 2007).

Di Pietra et al. (2008) in general, find that board effectiveness, as measured by level of ‘busyness’, has a statistically significant and positive influence on a firm’s market performance. In the Italian business context, directors who serve on many boards tend to be well connected, with reputable corporate, social and political links and, therefore, viewed by investors as more effective in signalling success in a firm’s business activities to capital markets. A mixed relationship is expected.
Jensen (1993) theorises that board size can influence the board’s ability to monitor, because the board of directors can become less effective in controlling management, i.e. as board size increases, there will be problems of coordination and communication. This is supported by Beasley (1996) who suggests there is a positive relation between board size and fraudulent financial reporting. Cheng (2008) posits that the association between board size and the variability of corporate performance potentially arises because larger boards have communication or coordination problems and agency problems, and finds that board size adversely affects the variability of corporate performance and value. The agency problems arise from dysfunctional norms of behaviour in the boardroom where, having more outside directors on boards should bring independent views to the company (Abdullah, 2007). Xie et al. (2003) show evidence that earnings management is highly correlated and has a significant negative relationship with DAC. Therefore, this study expects a positive association with the magnitude of earnings management.

### 3.5.2 Audit Committee Size

Dechow et al. (1996) posit that larger boards may result in ineffective monitoring because of the propensity of communication breakdown and inefficiency, but, Carcello and Neal (2000) found no significant relationship with going concern reports. However, Abbott et al. (2004) found a significant negative relationship with restatement. Mangena and Tauringana (2008) found that, on average, companies that engage auditors to review their interim reports, have a larger audit committee size. An earlier study by Beasley and Salterio (2001), found a positive and significant coefficient on board size, suggesting that larger boards benefit from having more outsiders on the audit committee than the number required. Thus, a positive relationship is expected for the first proxy, i.e. FFR.
For the earnings management’s, Saleh et al. (2007) posit that audit committee size can have a significant impact on the monitoring of earnings management. Yang and Krishnan (2005) found that audit committee size is negatively associated with earnings management, suggesting that a certain minimum number of audit committee members maybe relevant to financial reporting quality. Lin et al. (2006) noted that audit committee size is significantly negatively associated with the occurrence of earnings restatement. Thus, a negative association is expected.

3.5.3 Audit Committee Independence

The agency relationship theorises that the presence of independent directors with specific financial training and experience will reduce the incidence of management irregularities. Thus, independence is important because independent directors are associated with lower agency costs, thus, firms may use independent directors as a means to enhance corporate governance mechanisms, as noted in Chau and Leung (2006). A recent study shows that there is a positive relationship between the proportion of independent non-executive directors on the audit committee, and the external auditor involvement in interim reporting (Mangena and Tauringana, 2008). Whilst, Abdullah (2007) noted that the more independent the board is, the more likely it is that the firm will issue the audited financial statement towards the deadline specified by the Bursa Malaysia listing requirements. Consistent with prior studies that show a negative relationship between the proportion of non-executive directors and the likelihood of fraudulent reporting (Dechow et al., 1996), and significantly negative associations with the occurrence of restatements (Abbott et al., 2004) but a positive relationship with selection of auditors (Iskandar and Abdullah, 2004). In addition, Abbott et al. (2003) found that audit committee independence, including expertise and diligence, are positively related to audit fees. Other than that, Beasley and Salterio (2001) found that
firms are more likely to voluntarily include more outsiders on the audit committee beyond the mandated minimum majority, when the proportion of outside directors’ representation on the board increases. Subsequently, Abbott et al. (2003) suggests that independent and diligent audit committee members demand increased audit coverage or purchase a higher quality audit. This is supported by Yatim et al. (2006) who document independent boards are likely to demand higher quality audit from external auditors resulting in higher audit fees.

The higher the proportion of independent directors on the audit committee provides an effective monitoring mechanism that reduces the inherent risk, and the scope of audit work performed leads to a reduction in the audit fee (Bliss et al., 2007). It is therefore, expected that the proportion of non-executive directors that monitor the financial reporting processes, is negatively related to the incidence of financial statement fraud. A negative association is expected.

3.5.4 Management Ownership

An early research by Morck et al. (1988) theorised that non-value maximising behaviour is proven to be prevalent in firms where management has more effective control, i.e. firms in which the managements’ private benefits of control are the greatest. Similarly, Beasley (1996) posits that management ownership can have differing effects on the likelihood that management will engage in actions that require subsequent restatement. Whereby, higher management stock ownership may motivate management to increase firm value, eliminating some of the inherent agency conflict between management and shareholders. Subsequently, Morck et al. (1988) documented that when a board’s ownership increases, the firms’ value increases. It is evident that when directors have equity ownership of their companies, there will be better monitoring as
proven in Menon and William (1994) and Abbott et al. (2000). Subsequently, Mitra et al. (2007) posit that high managerial ownership firms are likely to experience a decline in agency problems in financial reporting due to a decrease in the managerial propensity to misreport financial results, and document management ownership is negatively associated with audit fees. Thus, the current study expects that management ownership is negatively related to fraudulent financial reporting.

Jensen and Meckling (1976) predict that low levels of insider ownership will imply a poor alignment of control between management and shareholders, where management with little ownership may have incentives to manage accounting numbers. Jensen (1993) argued that boards are ineffective monitors when their ownership equity is small. Insider ownership or management ownership is used as a proxy for management ownership of shares (Gul and Tsui, 2001; Gul et al., 2002), or director ownership as a proxy for managerial ownership (Gul et al., 2003). As noted in Gul and Tsui (2001), the increased insider ownership improves the informativeness of reported earnings, but it will be much stronger when audit quality is lowered. This lends support to Warfield et al. (1995, p65), that management ownership is positively associated with the informativeness of accounting earnings. Where, firms with higher managerial ownership, have significant correlation between stock returns and accounting earnings. This is further highlighted by Ball and Shivakumar (2008a) that managers opportunistically inflate earnings.

Gul et al. (2002) document a negative association between management ownership and DAC for firms with big six auditors, supporting the theory of agency cost as a controlling mechanism as proxied by audit quality, that firms with low director ownership, and low audit quality, are associated with higher levels of opportunistic
earnings management. Also, Hirota and Kawamura (2007) show evidence that an implicit mechanism is more likely to be effective when workers have a larger share in the firm in which they are working, supporting the earlier study by Warfield et al. (1995) that when the increase in managerial ownership is low, there is an increase in DAC. Therefore, a negative association is expected.

### 3.5.5 Age Listed in Capital Market

Age listed, measures the length of time a firm’s common stock has been publicly traded, consistent with Abbott et al. (2004), Carcello and Nagy (2004a; 2004b). It controls for differences in the length of time that the firm’s common stock has been traded in public markets. For instance, new firms are likely to face greater pressure when listed on stock exchange (Carcello and Nagy, 2004a). Beasley (1996) noted that new public companies may encounter difficulty with the SEC enforced reporting requirements and may not have commensurate financial reporting control established. However, there is no significant relationship reported. Subsequently, Carcello and Neal (2000) also reported the same, in relation to going concern report. In contrast, Abbott et al. (2004) document a significant negative result in relation to restatement, and Gul et al. (2009) where firms’ age is negative and significantly related to discretionary accruals. Thus, a negative association is expected.

### 3.5.6 Leverage

Loebbecke et al. (1989) note that poor financial performance often increases the likelihood that management will engage in actions that will require subsequent restatement. Whilst, Desai et al. (2006) document a significant difference between restatement firms and the control firms in their debt to assets ratio, suggesting this could be a factor for fraud firms’ determinant. There are many measures as a proxy to
leverage. Some studies uses long-term debt to total equity, while some use long-term debt to assets, others also use total liabilities to total assets. Dechow et al. (1996) and Palmrose (1987) document the greater the leverage, the more likely are the firms to commit fraud. Thus, a positive relationship is expected for FFR. In relation to earnings management, Klein (2002b) shows that earnings management is positively significant with debt. For the study, leverage is expected to have a positive association with earnings management.

### 3.5.7 Firm Size

Firm size, acts as a control variable because of the existence of any financial reporting costs may result in lower costs as a fraction of firm size (Felo et al., 2003). Ariff et al., (2007) found size to be slightly associated with corporate governance ratings, while Firm’s size is negatively associated with the likelihood of appointing an accounting financial expert (Defond et al., 2005). Thus, a negative association is expected.

Mangena and Tauringana (2008) argue that large companies are more likely to exhibit better corporate governance structures than smaller companies. While Carcello and Neal (2004b) found that larger clients or companies may be more successful in getting an auditor to acquiesce to aggressive accounting, and that in some cases this aggressive accounting may degenerate from an exercise of legitimate managerial discretion to financial reporting. Many prior studies in earnings management literature document a negative association of firms’ size with earnings management such as Gul et al. (2002), Klein (2002b), Krishnan (2003) and Balsam et al. (2003). For instance, Xie et al. (2003) noted that smaller firms may operate with less scrutiny or may be able to engage in more earnings management. Thus, a negative association is expected.
3.5.8 Independent Directors

Fama and Jensen (1983b) theorise that independent directors on the board will make the board of directors more effective in monitoring managers and exercising control on behalf of the shareholders. Hence, the ability of the board to act as an effective mechanism depends on its independence from management (Beasley 1996, Dechow et al., 1996). Furthermore, Klein (2002b) document abnormal accruals is negatively associated with the percentage of outside directors on the board.

Carcello and Neal (2000) show evidence that the composition of audit committees is associated with the type of audit report issued to companies experiencing financial distress, where there is a significant negative relationship between the percentage of audit committee members who are insider or grey directors and the likelihood of receiving a going concern modified report. This is supported by Petra (2005) who found that outside independent directors appear to strengthen corporate boards. Thus, the study expects a negative relationship of independent directors with the magnitude of earnings management.

3.5.9 Performance

Performance, or growth, as prior literature suggests, controls for the effects of firms’ performance (Srinivasan, 2005). It is predicted to have a positive relation with earnings management (Dechow et al., 1995; Saleh and Ahmed, 2005; Lee et al., 2006; Gul et al., 2009). Prior literature suggests that it is measured by return on assets (Saleh and Ahmed, 2005), and acts a control variable (Gul et al., 2009) and Mangena and Chamisa 2008). Abdullah (2004) found a positive and significant correlation between board independence and ROA, suggesting that board independence is associated with a firms’ high performance. Yatim et al. (2006) document negative and significant relationships
between ROA and board characteristics and audit committee characteristics. Subsequently, Abdullah (2006) found ROA to be consistently significant in influencing reporting timeliness, whereby better performing firms provide more information. This is shown in Mangena and Chamisa (2008) who found a negative but non-significant association of ROA to incidences of listing suspensions. But in relation to auditors, when testing for endogenous discretionary accruals and auditor tenure, Gul et al. (2009) document that ROA is positively related but non-significant. While Lee et al. (2006) show that, ROA is positive and significantly related to restated earnings. Thus, a positive association is expected, whereby higher growth will induce managers to release financial reports that do not present an accurate financial performance of the firm.

3.6 Conclusion

The chapter explains the theories that are adopted in the study (agency theory, resource dependence theory and behavioural decision theory), and framework of the study, that leads to hypotheses conjectured. Prior studies in RDT were very much focused on the board’s size, management, gender, board’s dependence and governance mechanism. Hence this study contributes to the literature by extending the RDT specifically in board’s expertise, i.e. on audit committee financial expertise, supported by experts literature and behavioural decision theory on expertise’s variables, consequently complements to the dominant agency theory that grounded most prior literature.