

## CHAPTER 2

### Theoretical Framework, Literature Review and Research Methodology

#### 2.1 Theoretical Underpinning

The theoretical framework rationalizing this study has been drawn from the theory of professionalism (Pavalko,1988), theory of planned behaviour (Ajzen, 1988), signature pedagogies (Shulman, 2005) and theory of experimental learning (Kolb, 1984). The following account describes each theory in detail.

##### 2.1.1.a. Theory of Professionalism

This study is anchored in the professionalism theory, which provides a framework for examining the sociological criteria defining a profession (Pavalko,1988). Pavalko (1988) delineated a comprehensive framework for assessing the sociological characteristics of a profession, comprising eight key constructs namely “intellectual technique”, “relevance to social values”, “training”, “motivation”, “autonomy”, “commitment”, “sense of community” and “code of ethics”. Table 2.1 illustrates how this study assessed the fulfilment of each construct in the model.

**Table 2.1: Criteria to Fulfil the Construct as per Pavalko’s (1988) Model**

<b>Construct</b>	<b>The criteria to meet the construct</b>
<i>Intellectual technique</i>	The profession necessitates the acquisition of a specialized set of knowledge and skills by its practitioners.
<i>Relevance to social values</i>	The applications of the profession align with the overall societal benefit and can be employed to address social challenges.
<i>Training</i>	A specialized training and education program must be undertaken to master the intellectual techniques inherent in the profession.
<i>Motivation</i>	Practitioners of the profession should be motivated to make meaningful contributions to society and driven to excel in the practice of their chosen field.
<i>Autonomy</i>	Practitioners of the profession should possess the capability to establish the requisite legislative infrastructure enabling them to effectively regulate their professional domain.
<i>Commitment</i>	A professional standard is tailored for practitioners within the profession, and practitioners are obligated to adhere to and uphold these standards.

<i>Sense of community</i>	The shared norms and values within the profession significantly influence the work behaviour and professional identity of practitioners. Furthermore, practitioners share a common identity and actively engage in collective events.
<i>Code of ethics</i>	An enforceable code governs the highest standards of ethical conduct among practitioners within the profession.

**Source: Author's Compilation**

The constructs of professionalism theory define the criteria of a profession. These constructs represent a profession's attributes, traits, and characteristics (Huber, 2012). Therefore, understanding these constructs enables assessing whether FA qualifies as a profession. Firstly, the intellectual technique construct emphasizes the necessity for specialized knowledge and skills that set professionals apart (Pavalko, 1988). Robertson (2011) further emphasized that the key characteristic of a profession is the commitment to ongoing skill development and lifelong learning. Secondly, the relevance to social values constructs accentuates the importance of a profession's contribution to societal well-being. Third, the training construct emphasizes the need for rigorous and continuous education and training (Pavalko, 1988). Fourth, the motivation construct explores the altruistic drive that propels professionals. Professionals should have a desire to contribute positively to society through their services. Fifth, autonomy is another vital construct, referring to the profession's ability to self-regulate and maintain independence (Huber, 2012). It can be achieved by establishing an association or body of professionals (Robertson, 2011). Sixth, the commitment construct pertains to the dedication of professionals to uphold the profession's standards and ethical guidelines. Seventh, a strong sense of community among professionals is crucial for fostering a collaborative professional environment. Finally, a formal code of ethics is essential for guiding professional conduct. The sociological approach to the profession is relevant to the study. According to Huber (2012), a profession must be considered indispensable by society. Recognizing FA as a societal necessity would increase public recognition (Lawrence, 1998). This, in turn, would improve the marketability and clarity of FA services.

The Pavalko's (1988) model is considered the most modern professionalism model (Alshurafat, 2021). This model has been adopted in the present study as its theoretical framework incorporating several essential constructs within the professionalism framework. In the literature on FA, Huber (2012) first explored the professional status of

FA in the USA through the lens of Pavalko's (1988) sociological model. His findings indicated that FA meets many of the established professional criteria. In the Australian setting, Alshurafat (2021) studied the sociological criteria of FA and concluded that autonomy and commitment criteria need to be met by FA to become a profession. Given the prevalence of the model in FA literature, the researcher explores the implications for professionalism of FA by addressing crucial issues like training, autonomy, and fostering a sense of community within the profession under its umbrella. As a critical lens, this framework enables a comprehensive exploration of the FA profession within the Indian context.



**Figure 2.1: Pavalko's (1988) Theoretical Framework of Professionalism**

**Source: Author's Design**

#### *2.1.1.b. Theory of Planned Behaviour (TPB)*

Many studies have used the TPB to understand and predict various human behaviours, such as choosing leisure activities, seeking jobs, applying to graduate school, and selecting a career (Ajzen, 2001). This theory provides a broad model for behaviour suitable for studying students' intentions and choices regarding their majors. The application of TPB

in educational research, particularly in the accounting and management domains, is well-established. For instance, Cohen and Hanno (1993) and Allen (2004) utilized TPB to examine students' perspectives and choices of business majors, while Tan and Laswad (2006) investigated students' intentions to major in accounting and non-accounting disciplines. The TPB specifically focuses on the psychological antecedents of intention, making it particularly suitable for this study. The TPB, developed by Ajzen (1988), is an extension of the Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen (1975). The TPB posits that behavioural intention is determined by three primary constructs: attitude toward the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991; Armitage & Conner, 2001). Attitude reflects an individual's favourable or unfavourable evaluation of the behaviour; subjective norms represent the perceived social pressure to perform or not perform the behaviour; and perceived behavioural control denotes an individual's belief in their ability to execute the behaviour.

In the context of this study, the behaviour in question is the pursuit of FAE. By examining the interplay of attitudes, subjective norms, and perceived behavioural control, the study aims to provide valuable insights into respondents' decision-making processes. The study's findings shall enable policymakers and regulators to design appropriate curricula for enhancing FAE in the country. Attitudes towards FAE include respondents' beliefs in perceived effectiveness, demand, challenges, and benefits of FAE. Subjective norms encompass the awareness regarding FAE, perception of corruption, fraud, and effectiveness of traditional audit methods. Perceived behavioural control involves an appropriate approach for integration, and curriculum design.

#### *2.1.1.c. Signature Pedagogies*

Shulman (2005a) introduced the concept of signature pedagogies, which represent the unique methods and modes of teaching specific to various fields of practice. These pedagogies are crucial in shaping the character of future professionals, symbolizing the values and hopes of their respective disciplines. They foster the development of "habits of the mind, habits of the heart, and habits of the hand", contributing to the early socialization of students into their fields (Shulman, 2005a). Signature pedagogies enhance the understanding of the "personalities, dispositions, and cultures" of different disciplines (Shulman, 2005a). They are essential for sustaining pedagogical consistency within educational programs, effectively communicating the epistemological foundations of

professional practice. By observing these specific teaching methods, educators can better equip students with the hands-on experience necessary for their future careers.

Shulman (2005a) further described signature pedagogies through three temporal patterns: pervasive initial pedagogy that shapes professional preparation, capstone apprenticeships, sequenced and balanced portfolios. These patterns are evident in the surface, deep, and implicit structures of professional education (Shulman, 2005a, 2005b, 2005c, 2008). Moreover, Shulman's signature pedagogies have been instrumental in shaping future direction, values, and practices of professions (Alshurafat et al., 2020). As a first, Alshurafat et al., (2020) applied signature pedagogies theory in exploring the pedagogical approach in the context of Australia.

Signature pedagogies involve concrete operational acts of teaching and learning, such as demonstrating and questioning, which form their surface structure. They also encompass pedagogies of uncertainty, engagement, and formation, addressing inherent challenges within professional disciplines. These challenges, although never fully resolved, must be managed. Furthermore, signature pedagogies provide students with the tools to navigate these challenges. Being in its nascent stage, exploring FAE through the lenses of signature pedagogies is quintessential to provide a roadmap that shall direct and guide its development into a distinct discipline in the educational set up. Therefore, it is important to explore the signature pedagogies related to FAE. Consequently, this will guide to know how teaching and learning might be enhanced to incorporate the skills and knowledge requisite for the emerging field.

#### *2.1.1.d. Experiential Learning Theory*

David Kolb's Experiential Learning Theory (ELT) provides a comprehensive framework for understanding how individuals learn through experience. According to Kolb, learning is a process wherein knowledge is generated through the transformation of experience (Kolb, 1984). This theory emphasizes the role of personal experience in shaping the learning process, arguing that the transformation of these experiences enables students to apply knowledge in practical situations (Manolis et al., 2013).

Kolb's model of experiential learning delineates four stages of knowledge acquisition and transformation: Concrete Experience, Reflective Observation, Abstract Conceptualization,

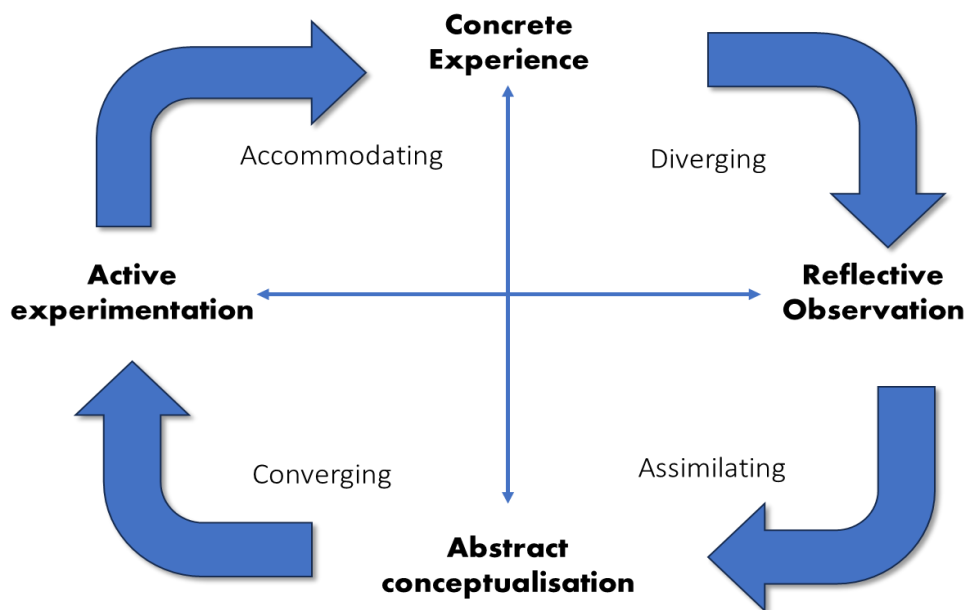
and Active Experimentation (Figure 2.2). A student can enter this cycle at any stage but should progress through a spiral sequence for effective learning. Through reflection, experiences are translated into concepts, which then guide students in active experimentation and the pursuit of new experiences. Kolb (1984) further posits that different stages of this model correspond to different learning styles, and students learn more effectively when the course content aligns with their preferred learning style. Moreover, it is crucial for students to be aware of alternative learning styles to help them acquire knowledge in diverse situations. Kolb and Kolb (2006) identify four learning styles, each associated with distinct problem-solving approaches.

The increasing focus on curriculum reforms to align with market needs and the importance of life-long learning has led educators to integrate more experiential components into their pedagogies (Bremser & White, 2000; Jelinek, 2017). This shift from teacher-centered to student-centered approaches has been advocated by educational researchers, who suggest abandoning traditional methods like "chalk and talk" in favour of more experiential learning activities that help students build work-related competencies (Sin et al., 2012; Mihret et al., 2017). In accounting education, for example, researchers have highlighted the benefits of experiential learning. Marriott (2004) argues that incorporating experiential examples into accounting education enhances students' cognitive abilities and understanding of business. Similarly, Crawford et al. (2001) advocate using experiential techniques to develop interviewing skills among accounting students.

Kolb's theory has significantly influenced educators, particularly those involved in higher education. It affirms the importance of active learning and cognitive processes, offering a valid framework for examining and strengthening the relationship between education, work, and personal development (Healey & Jenkins, 2000). The theory is widely referenced in studies on experiential learning in fields such as accounting, management, and economics (Baker et al., 1986; Auyeung & Sands, 1996; Holman et al., 1997; Kolb & Kolb, 2005; Helliard, 2013). Moreover, Kolb's ideas have been instrumental in structuring and sequencing pedagogy in ways that enhance student learning (Healey & Jenkins, 2000). By exposing students to various learning styles, experiential learning promotes the development of meta-cognitive abilities, enabling students to become self-directed learners (Manolis et al., 2013).

The theory of experiential learning is particularly relevant to this study, which examines FAPs' and academics' perceptions of the effectiveness of various pedagogical approaches. In the context of FAE, experiential learning techniques are essential for equipping students with specialized knowledge and hands-on experience. Researchers have argued that educators must prepare students for professional challenges by providing work-relevant education (Fleming, Pearson, & Riley, 2008; Brickner et al., 2010; Kern & Weber, 2016; Souza, 2017). According to Jepperson (2016), experiential learning techniques allow forensic accounting students to simulate real-life situations involving fraud and forensic concepts, thereby enhancing their critical thinking and problem-solving skills.

In FAE, applying the lens of signature pedagogies and Kolb's experiential learning theory can help educators identify methods that provide students with a comprehensive understanding of both the practical work and the professional culture (Alshurafat et al., 2020). Recognizing and implementing signature pedagogies and experiential learning theory within FAE is vital for improving teaching and learning, ultimately better preparing students for their future roles.

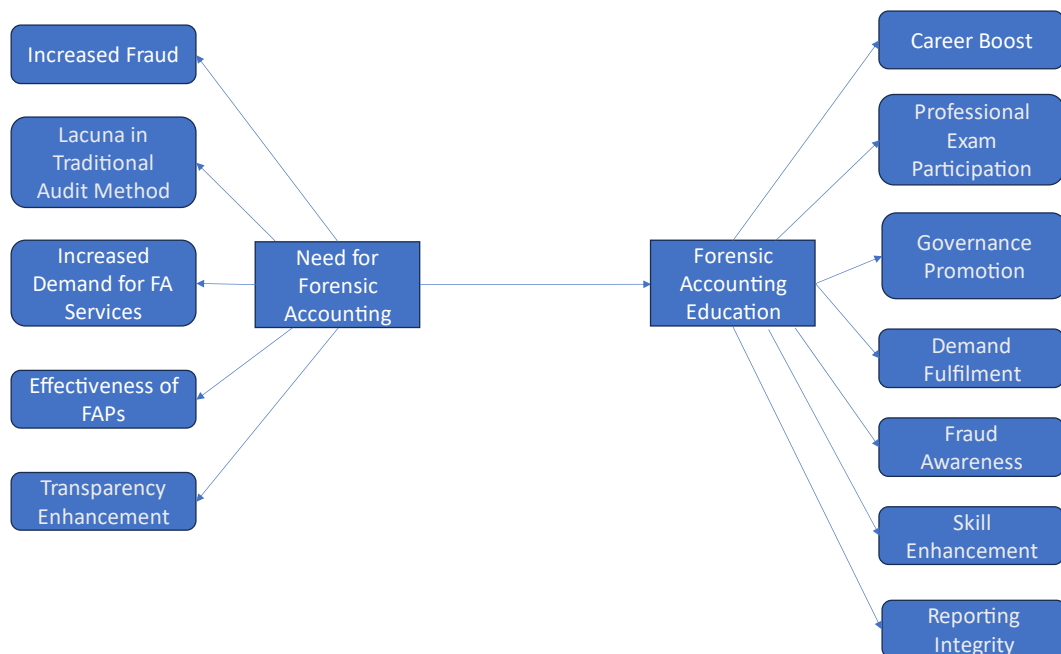


**Figure 2.2: Experiential Learning Model**

**Source: Adopted from Manolis et al. (2013)**

### 2.1.2 Conceptual Framework

Economic crimes in the current era reiterate time and again the exigency of FA (Chetry et al., 2023; 2024). This need for FA is embedded in the inefficacy of traditional audits to counter advanced fabrications of recent origin (Rezaee et al., 2004). The benefits attributed and efficacy documented by FA further reinstate its demand (Ismail et al., 2018; Al-Balqa et al., 2021; Ebaid, 2022). With the growing demand for FA, the need to hone FAE comes to light (Rezaee et al., 2004; Carpenter et al., 2011). This is plausible as FAE boosts job prospects (Melancon, 2002), encourages professional certification, and promotes good corporate governance (Luke, 2013). It fosters social change toward greater transparency (Carpenter et al., 2011). FAE prepares professionals to enhance the credibility of financial reporting (Lee et al., 2015) and meet industry demands (Okoye et al., 2020), thus contributing to a more transparent financial environment. Figure 2.3 unfolds the relationship of demand and supply prospect of FAE. The growing demand for FA in India necessitates the enhancement of FAE. FAE prepares future professionals to instil integrity in financial reporting and governance. It has the potential to help reduce the chances of fraud and increase the credibility of the financial sector.



**Figure 2.3: Conceptual Framework**

**Source: Author's Design**



## **2.2 Review of Literature**

### *2.2.1. Evolution of FAE*

FAE has undergone significant evolution over the past decades, driven largely by increased demand from both the academic and professional spheres. Early discussions on the need for FAE emerged following highly publicized financial reporting scandals, prompting researchers to advocate for the incorporation of such education (Melancon, 2002). Before the late 1990s, academic articles on FAE were sparse (Rebele et al., 1998), and then Rezaee et al. (1996), identified only four universities in the USA offering dedicated FA courses. Subsequently, Apostolou et al. (2010) noted that from 2006 to 2009, there was a rise in academic interest in fraud and FA issues.

The inclusion of FA in curricula has expanded worldwide, with universities in regions like mainland China and Hong Kong responding to the growing demand for FA services (Wang et al., 2016). However, in Saudi Arabia, Ebaid (2022) found that FA integration remains weak, with students criticizing the ineffectiveness of current auditing practices in fraud detection. As FA programs proliferate, studies argue for experiential learning methods that engage students with real-world FA challenges (Rezaee et al., 2004; Efiog, 2012; Kramer et al., 2017; Alshurafat et al., 2020). Students and auditors find FAE to be important and their expectations are invested in witnessing an increase in interest and demand for this occupation in the future (Yusof et al., 2007). Rezaee et al. (2016) reveals that FA classes should be offered by business schools and accounting programs at both undergraduate and graduate levels.

The evolution of FAE shows the increasing need for specialized knowledge in addressing financial fraud. Several studies (Buckhoff & Schrader, 2000; Pearson & Singleton, 2008) accentuate that traditional accounting education is inadequate. In response to this gap, many universities now offer FA courses as standalone programs, minors, or certificates (Kramer et al., 2017). These programs prepare students with theoretical knowledge as well as practical skills, investigative techniques, and ethical judgment (Akyel, 2012; Oleiwi, 2023). This development aims to align educational outcomes with the demands of the FA domain. It ensures that FAPs are equipped to handle the complexities of modern fraud (Tarjo et al., 2021; Alsheikh et al., 2022).

### 2.2.2. *Curricula for FAE*

The body of FA literature is growing, primarily concentrating on the United States (Seda & Kramer 2015; Huber 2012). Interest in FAE surged in the early 2000s, leading to significant developments. For instance, West Virginia University received a grant from the National Institute of Justice to create a model FA curriculum (WVU, 2007; Seda & Kramer, 2015). Many colleges in the United States have tested and adopted this recommended curriculum (Young, 2008). Rezaee and Burton (1997) proposed four FAE modules covering themes such as investigation and law, fraud and fraud auditing, financial reporting, and ethics. The first module focuses on the skills needed to detect and investigate fraud. It includes topics like types of fraud, documentation, evidence sources, and examining internal and external fraud schemes. The second module covers the digital control environment, preventive measures, digital evidence, data mining, cybercrime, and electronic case management systems. The third and fourth modules discuss the roles of auditors and fraud examiners in identifying fraud. They also include interviewing skills, legal concepts, evidence management, criminology, and ethics. Additionally, the AICPA recently advocated for a shorter FA program. This idea arose from a demand to contribute to the future of the FA profession by addressing the growing need for FA specialists.

Moreover, FA should have a deeper experiential learning component than conventional accounting (Bonita et al., 2016). According to Ebaid (2022), FA courses are now offered worldwide, though they vary significantly in curriculum design and pedagogical tools. Despite these differences, these courses collectively face the common challenge of aligning with the evolving demands of the FA profession.

Prabowo (2021) describes FA as a problem-solving tool that necessitates continual adaptation to changes and developments in practice. This emphasized the dynamic nature of FAE, which must evolve to remain relevant. Jalilvand and Kostolansky (2016), Elder and Yebba (2017), Honigsberg (2020), Odia and Akpata (2021), Rezaee and Wang (2019), and Abdul-Baki (2021) note that FA curricula typically cover a wide range of topics, including fraud investigation, litigation, business valuation, and IT.

Various approaches have been followed by the universities to integrate FA into their programs. Some institutions offer standalone courses, while others provide comprehensive programs of study, as documented by Curtis (2008), Fleming et al. (2008), Heitger and

Heitger (2008), Kresse (2008), Pearson and Singleton (2008), Ramamoorti (2008), Brickner et al. (2010), Alshurafat et al. (2019), and Rezaee and Wang (2019). However, Kramer et al. (2017) report significant variations in preferences regarding the teaching techniques used in FA, with FAPs often favouring experiential learning methods. Alshurafat et al. (2020) emphasize the importance of experiential learning, suggesting that it should be central to FA pedagogy. This view is further supported by Alhusban et al. (2020) and Birt et al. (2023), who advocate for engaging students with practical, hands-on learning experiences.

Therefore, the hiring of qualified teaching staff with expertise in FA is critical to the success of these programs, as proposed by Al-Hadrami and Hidayat (2015) and supported by Dave and Patel (2023). This ensures that students receive education that is both theoretically robust and practically relevant.

### *2.2.3. Challenges and Benefits of FAE*

FAE offers significant advantages to students, educators, and FAPs, including better preparation for careers in accounting and enhanced fraud detection skills (Rezaee & Burton, 1997; Rezaee et al., 2004). However, these benefits are often tempered by significant challenges. One of the primary challenges is the inadequacy of existing accounting curricula in addressing the specific needs of FAE. Odia and Akpata (2021) and Yang and Lee (2020) highlight a gap between the education provided and the practical demands of the profession. This gap is further exacerbated by a lack of financial and educational resources, insufficient administrative support, and limited interest from students and academic staff (Rezaee et al., 2004a; Fleming et al., 2008; Alshurafat et al., 2021a, b). The absence of educational materials and financial support is identified as the most significant obstacle to the inclusion of FA in accounting curricula (Sofianti et al., 2014). This view is corroborated by Fleming et al. (2008) and Al-Hadrami and Hidayat (2015), who point to faculty and curriculum limitations as major barriers in Bahraini universities.

The multidisciplinary nature of FA presents another challenge for educators and curriculum designers. The curricula should incorporate knowledge from law, accounting, criminology, psychology, and sociology (Kresse, 2008). However, the integration of these diverse fields into a cohesive program is complex and requires careful planning.

Additionally, the current accounting curriculum does not meet the demand for FAE and practice in society (Rezaee et al., 2015). Rather than a lack of demand from employers and students, the challenge with integrating FAE is institutional in character.

Stakeholder groups, including FAPs, academics, and service users, have varying viewpoints on many elements of FAE, such as the manner of delivery, knowledge contents, and instructional pedagogies (Wang et al., 2016). Kramer et al. (2017) found considerable discrepancies in educators' and FAPs' perceptions of FA material and preferred teaching techniques. Additionally, according to Seda and Kramer (2014), there is no consistency in FAE delivery methodologies or how to integrate FA into the accounting curriculum.

Despite these challenges, there is a strong consensus among stakeholders on the importance of integrating FA into accounting curricula. Stakeholders agree that offering distinct courses in FA at both the postgraduate and undergraduate levels would be beneficial (Al-Hazaima et al., 2021; Alshurafat et al., 2022; Akour et al., 2023; Clavería Navarrete & Carrasco Gallego, 2023). However, they differ in their perspectives on how these courses should be taught and what content is deemed appropriate (Kramer et al., 2017). Instructors must also consider the skills required by FAP when creating FA programs (McMullen & Sanchez, 2010). Analytical capabilities, computer skills, investigation skills, and legal duties are crucial for FAP, and these skills should be incorporated into the curriculum to make FA programs beneficial to students (Brooks & Labelle, 2006). Therefore, the course or program of FA should be modified depending on the desired outcome, with topics selected based on the intended audience, required degree of knowledge, delivery duration, and whether the course is part-time or full-time. While FAE presents numerous challenges, including curriculum design, resource allocation, and stakeholder alignment, it also offers substantial benefits in preparing students for the evolving demands of the FA profession.

#### *2.2.4. Skills and Techniques Required for FAPs*

FA requires a comprehensive set of skills that go beyond traditional auditing and accounting competencies (Tiwari & Debnath, 2017). FAPs must possess a diverse set of personal characteristics and expertise, including writing and spoken communication, interviewing tactics, specialized computer abilities, and investigation skills (Akkeren et al., 2013). Moreover, it is critical for FAPs to have appropriate skill sets to prevent indirect

costs such as increased unemployment, legal costs, and economic interruption during an investigation (Carnes & Gierlasinski, 2001). The skills required by FAPs include deductive analysis, critical thinking, and unstructured problem solving (Uyar & ÇAvuşoğlu, 2020). Additionally, practical or psychomotor skills such as computer literacy, analytical abilities, and research skills further enhance the ability of FAPs to evaluate large volumes of data and gather evidence of fraud (Okoye & Akamobi, 2009). Further, FAPs must also possess distinct ethical values and personal characteristics that differ from those of traditional auditors. For instance, FAPs in the public sector should exhibit traits such as analytical thinking, ethical behaviour, attention to detail, confidence, and evaluative skills (Salleh & Ab Aziz, 2014). It is important to note that FAPs need problem-solving abilities that may vary by country, influenced by local regulations and practices (Prabowo, 2013).

Furthermore, FAPs should not limit themselves to financial accounting skills but should expand their horizons to include knowledge of internal control systems, law, proficiency in investigation, and interpersonal skills (Bhasin, 2007). It has been established that FA skills are helpful in predicting fraudulent activities within organizations (Oyerogba, 2021). Moreover, the experience, skills, and competencies of a FAP may influence the quality of FAUs and their capacity to detect fraud (DiGabriele, 2008; Christensen et al., 2016).

In the digital era, digital forensics is developing as a sub-field within FA, aiding in uncovering evidence to prove the existence of a crime (Kreuter, 2017). Experts with core accounting, financial analysis, and communication skills can effectively help FAPs present the gathered evidence before the court. Furthermore, FA requires a deep understanding of financial statements and internal controls, as well as the ability to critically analyse them to identify potential fraud (Ramaswamy, 2005). To develop these skills, FAPs require continuous education and training, especially in areas such as digital forensics and complex financial transactions (Bhasin, 2013). Additionally, creative thinking, strong written and verbal communication skills, and business acumen are essential for successful forensic accountants (Messmer, 2004). The identification of required FA skills will also help in developing effective curricula in universities, particularly as academic institutions strive to enhance these skills in line with FA demands (Carnes & Gierlasinski, 2001).

Additionally, FA is a specialized field that requires a unique set of techniques to uncover and explain fraudulent activities. One of the most effective ways of FA instruction is the case-based approach (Brezina et al., 2012). Kilic (2020) found that big data techniques and

data analytics significantly enhance the effectiveness of FA inspections. It further states that FAPs must be proficient in using big data analysis tools and techniques, including Benford's Law, Relative Size Factor, data mining, and artificial neural networks. The efficiency of FA techniques can be witnessed by observing the number of fraud cases detected by forensic auditors in recent times (Oyerogba, 2021).

The experience in accounting services also plays a vital role in the investigation process. FAPs apply their skills to legal cases, answering questions regarding economic damages and identifying loopholes in the internal control system (Kreuter, 2017). Moreover, statutory audits are not enough to detect high-tech fraud, and hence periodic engagement of forensic auditors will help in unearthing fraud (Oyerogba, 2021). Furthermore, forensic accountants must be skilled in report writing, verbal communication, and the use of technology, particularly in the context of digital forensics (McMullen & Sanchez, 2010). As, FA is a specialized field that requires a unique set of skills beyond traditional auditing and accounting competencies, it is necessary to identify the requisite skills for FAPs in developing countries like India.

#### *2.2.5. A Systematic Overview of Prior Work*

##### *2.2.5.1. Literature Related to FA, FA Skills and FA Technique*

Table 2.2 provides a systematic overview of the existing literature related to FA, emphasizing three key dimensions: FA practices, requisite skills, and techniques used within the field. It incorporates studies from diverse geographical and professional contexts, employing various research methodologies to explore how FA contributes to addressing financial fraud and enhancing corporate governance.

**Table 2.2: Literature Related to FA, FA Skills and FA Technique**

<b>Authors</b>	<b>Context</b>	<b>Type of Research</b>	<b>Target Respondent(s)</b>	<b>Findings</b>
DiGabriele (2009)	USA	Survey-based empirical study	253 participants, including accounting academics, forensic accounting practitioners, and auditors in the USA	Integrating FA skills into the audit process is essential for improving fraud detection. The Sarbanes-Oxley Act and PCAOB standards heighten the need for auditors to have these skills. While there is broad support for this integration, skepticism exists about whether current audit procedures, like SAS 99 brainstorming, adequately address fraud detection challenges.
Prabowo (2013)	Indonesia and the USA	Exploratory, qualitative study using literature reviews, in-depth interviews, and a focus group discussion	Forensic accounting professionals from Indonesia and the USA	FA requires a unique approach compared to traditional accounting, focusing on the "problem-based" nature of fraud investigation. Essential attributes of forensic accountant are mentality, method, and experience.
Akkeren et al., (2013)	Australia	Exploratory research, qualitative study using semi-structured interviews	32 forensic accounting professionals from various firms across Australia, including large, medium, and small firms.	Australian forensic accountants offer services in fraud investigation (97%), expert witness services (94%), commercial litigation/dispute advisory (91%), and valuation/damages assessment (84%). Key skills include strong communication (93%), critical thinking (88%), technical accounting (78%), and technology (63%) skills, along with attributes like interpersonal skills, analytical thinking, inquisitiveness, and resilience. A significant gap in graduates' communication skills needs addressing in university curricula, alongside integrating legal knowledge and specific forensic skills like data mining and fraud investigation into accounting programs.

Louwers (2015)	USA	Conceptual and historical review		Crime-related forensic accounting in the USA originated with methods pioneered by US Treasury agent Frank Wilson, key to convicting criminals like Al Capone and Bruno Hauptmann. These early techniques, including financial and handwriting analysis, have since evolved with advancements like data mining and digital forensics.
Andon et al. (2015)	Australia	Qualitative content analysis	Analyzes 192 court-reported cases of accountant fraud in Australia from 2001 to 2011.	Accountant fraud follows four pathways: crisis responders, opportunity takers, opportunity seekers, and deviance seekers, driven by situational factors and individual attitudes.
Botes and Saadeh (2016)	Australia, New Zealand, and South Africa	Structured literature review and meta-analysis		The study shows that "forensic accounting" has significantly gained prevalence over the past decade, especially in Australia, with some presence in New Zealand and South Africa. The research highlights a strong focus on its role in fraud prevention and a growing reliance on websites rather than academic literature for information.
Tiwari and Debnath (2017)		Literature review		FA is multidisciplinary, encompassing auditing, accounting, statistics, information technology (IT), legal knowledge, and human skills. Key skills required include proficiency in statistical tools, IT tools for detecting cybercrimes, and investigative skills. Human skills, such as understanding social engineering attacks and possessing strong communication skills, are increasingly important.
Rezaee and Wang (2018)	China	Survey-based study with a literature review	95 academics and 103 practitioners in China	The study reveals a consensus on the need to integrate Big Data skills into FAE, driven by growing demand. Key topics include data analytics, predictive modelling, and digital forensics, essential for combating fraud. Despite challenges like a shortage of qualified professionals and the complexity of



				integration, incorporating Big Data into the curriculum is expected to greatly enhance forensic accountants' analytical capabilities.
Howieson (2018)	Australia	Conceptual and literature review-based		FA's multidisciplinary and technical nature risks reducing ethics to mere legal compliance. The study emphasizes the need for forensic accountants to develop <i>phronesis</i> (practical wisdom) to navigate complex situations beyond technical rules. Cultivating <i>phronesis</i> requires habitual practice, self-reflection, and integrating intellectual and moral virtues, essential for public trust and quality service. The study advocates for incorporating virtue ethics into FAE and practice to counteract the growing focus on commercialism and technical skills that could erode the profession's ethical foundation.
Ozili (2020)		Conceptual study with a theoretical framework		The study proposes several hypotheses within FA theory, such as the Materiality Hypothesis, the Ability-Signaling Hypothesis, the Bonus Contract Hypothesis, the Anonymity Hypothesis, the Collapse Avoidance Hypothesis. FA theory implies that forensic accountants must consider the broader impact of their detection methods, remain aware of their tools and environment, and balance both accounting and non-accounting factors, while considering the interests of all parties involved in the investigation.
Peltier-Rivest and Pacini (2019)	Global, with a focus on Canada and the USA	Theoretical study based on legal case studies and forensic accounting strategies		Pharmaceutical drug counterfeiting is a rapidly growing global fraud issue, generating around \$75 billion annually in illicit sales and leading to significant health risks, including the loss of lives.

Ozili (2020)	Global, with a focus on the general applicability of forensic accounting and fraud research.	Commentary and literature review		The study emphasizes that fraud's complexity greatly affects FA approaches, and notes the difficulty in obtaining reliable data due to firms manipulating information to avoid legal consequences.
Rehman & Hashim (2020)	Oman	Descriptive cross-sectional survey study	77 participants from 115 public listed companies in Oman, including members of the Board of Directors (BOD), Audit and Risk Committee (ARC), Nomination and Compensation Committee (NCC), and executive/senior management.	The study found that FA significantly boosts sustainable corporate governance by eliminating fraud and enhancing the effectiveness of governance mechanisms like the BOD, ARC, and NCC.
Dauenhauser et al., (2020)	USA	Qualitative program evaluation study	54 members of Enhanced Multidisciplinary Teams (E-MDTs) in New York State	The study found that forensic accountants are vital to E-MDTs, offering expert financial analysis that helps identify elder financial exploitation. Their detailed reports are key for prosecution, restitution, and guiding investigations. However, challenges include limited funding and the need for more frequent access, particularly in rural areas.

Dimitrijević et al., (2020)	Serbia, Croatia, Macedonia, and Bosnia and Herzegovina	Survey-based empirical research	51 certified auditors from Serbia, Croatia, Macedonia, and Bosnia and Herzegovina.	The study reveals that external auditors often find irregularities in financial statements, especially overstated revenues and misrepresented inventories, with Serbian auditors encountering these issues more frequently than those in other countries.
González (2020)	Argentina	Empirical study	Permanent Household Survey (EPH) covering 2003-2017 and patrimonial statements of public officials for 1999-2017.	The study found that income data in the EPH from 2007 to 2015, during INDEC's intervention, significantly deviated from Benford's Law, indicating possible manipulation. In contrast, patrimonial statements of public officials mostly conformed to Benford's Law, especially in the legislative branch, with more discrepancies in the executive branch.
Uyar and Çavuşoğlu (2020)	Turkey	Survey-based empirical study	80 Turkish accounting academicians	Academicians rate deductive analysis, critical thinking, and unstructured problem-solving as the most important skills for forensic accountants, while oral communication, investigative flexibility, and analytical proficiency are seen as less critical. Significant differences exist between male and female academicians, with females placing higher importance on critical thinking, investigative flexibility, analytical proficiency, and written communication. Experience also influences perceptions, with less experienced academicians valuing deductive analysis and unstructured problem-solving less, and those with 16–20 years of experience rating composure as less critical.
Öztürk and Usul (2020)	Turkey	Empirical study with practical applications in a large-scale manufacturing enterprise	Focuses on applying rule-based expert systems to the financial data of a large-scale enterprise.	The results indicate that rule-based expert systems can significantly enhance the ability of enterprises to detect existing frauds and prevent future irregularities by providing automated, systematic, and reliable fraud detection mechanisms. The study also highlights the potential of integrating such systems into FA practices.

Akinbowale et al., (2020)	South Africa	Conceptual and literature review-based study with the development of conceptual models.		A key challenge in using FA to combat fraud is the lack of a suitable framework. The study emphasised the importance of innovative techniques, including IT-based tools, for effectively addressing economic crime.
Kılıç (2020)	International	Descriptive research, literature review-based		Big data and analytics greatly enhance FA, enabling advanced anti-fraud techniques like data visualization, predictive analysis, behaviour analysis, content analysis, social network analysis, and geo-spatial analysis. Traditional fraud detection methods are now insufficient, necessitating computer-aided techniques. Forensic accountants must master big data tools like Benford's Law, Relative Size Factor, data mining, and neural networks. Comprehensive training in big data analytics is essential for FAE, ensuring students are well-prepared for real-world challenges.
Arslan (2020)	International, with a focus on the USA and Canada	Descriptive research		FA merges accounting, auditing, and investigative skills to support financial disputes. The USA and Canada lead in developing and implementing FA practices. Key developments in the USA include the 1992 founding of the American College of Forensic Examiners International and the 2002 Sarbanes-Oxley Act. The profession demands independence, honesty, objectivity, skepticism, and ethics, along with traits like curiosity, resilience, creativity, intuition, reliability, and competence.
Wahyuni-TD et al., (2021)	Indonesia	Empirical study using partial least squares-structural equation modeling	142 respondents from Indonesian Zakat institutions	The study found that good governance and fraud prevention significantly improve Zakat institutions' performance. However, the principle of fairness in governance did not significantly impact Zakat performance, either directly or through fraud prevention.

Lima et al., (2022)	Brazil	Exploratory case study	The study analyzes real-life bank statements from two criminal investigations overseen by the Brazilian Federal Justice.	The study shows that social network analysis (SNA) effectively helps forensic accountants detect money laundering activities like pooling accounts, strawmen, and smurfing. SNA improves tracing illicit funds and identifying key actors in criminal organizations.
Alshurafat et al., (2021)	Jordan	Literature review		Strengths of FA are educational benefits, professional value, growing demand, new career paths, fraud reduction. Weaknesses of FA are lack of regulation, educational inconsistencies, research gaps, public misconceptions, need for qualified practitioners, lack of public recognition and professional reputation, no entry control.
Gangwani (2021)	India	Exploratory research, survey-based	156 respondents consisting of academicians and practitioners	Most respondents view FA as a new concept in the banking sector, noting its distinct skill set compared to traditional accounting. Key benefits include proactive fraud detection and investigation expertise, while challenges involve high costs and confidentiality issues. The majority support including FA in academic syllabi, with 66% favouring postgraduate instruction. Respondents also agree that bank frauds in India have increased, often involving insiders, and believe forensic accounting will help regulatory authorities combat these frauds effectively.
Alshira'h et al., (2024)	Jordan	Descriptive and exploratory research using partial least squares-structural equation modeling	248 responses collected from the retail industry in Jordan	There is a negative correlation between VAT evasion efficiency and factors like tax sanctions, detection probability, tax ethics, justice, FA, and government spending. FA and increased government expenditure can strengthen tax authorities' ability to protect public funds and reduce VAT evasion in SMEs. Emphasizing sanctions, detection, ethics, and justice is crucial for the public

				sector and tax authorities. These insights are vital for regulators in crafting laws and strategies to combat VAT evasion.
Ul Hassan et al., (2023)	Pakistan	Descriptive research based on primary data collection through questionnaires	250 financial accountants, internal auditors, and external auditors.	Robust corporate governance (CG) practices and IT techniques are highly effective in detecting and reducing fraud. However, ethical officers and training were seen as less effective. The study underscores the importance of CG and IT in minimizing fraud but suggests improvements in ethical training and the role of ethical officers.
Al Natour et al., (2023)	Egypt	Survey-based empirical study	117 external auditors working in Egypt	The study found that effective communication, psycho-social, accounting, and auditing skills positively relate to auditors' self-efficacy in fraud detection. Auditors with higher self-efficacy are more effective in detecting fraud. CAATTs enhance the impact of forensic accounting skills by moderating the relationship between self-efficacy and fraud detection effectiveness.
Kaur et al., (2023)	International	Systematic literature review (SLR) using the PRISMA method		FA positively correlates with effective fraud detection and prevention. Key techniques include data mining, password protection, discovery sampling, ratio analysis, and Benford's Law. Major challenges are low awareness and education, high implementation costs, and insufficient integration across sectors.
Alzoubi (2023)	Jordan	Survey-based empirical study using partial least squares structural equation modelling (PLS-SEM)	144 internal auditors working in service companies in Jordan	Significant positive relationship between FA practices, corporate governance, and the effectiveness of internal controls.

Navarrete and Gallego (2023)	Spain	Qualitative exploratory study with a phenomenological approach	Professional experts in forensic accounting	The study confirms that FA techniques and tools effectively prevent financial statement fraud, both proactively and after risks have materialized.
Al-Hazaima et al., (2023)	Jordan	Empirical study using logistic regression analysis	50 publicly traded industrial firms in Jordan, covering 250 firm-year observations from 2017 to 2021.	There is a significant positive association between using FA services and increased litigation risk. Companies utilizing FAS faced greater scrutiny, heightening their legal vulnerability.
Ozili (2023)	International	Thematic and systematic literature review		Key areas in FA research include fraud motivation, consequences, detection techniques, theory, skills, education, and job prospects. The USA and Canada lead in research, while Europe, Oceania, and Asia lag behind, with high interest in Africa. Forensic accounting research is less developed compared to other accounting fields, highlighting the need for more balanced regional development. The study highlights the societal benefits of FA, such as enforcing tax justice, boosting societal trust, encouraging law-abiding behaviour, and increasing investor confidence.
Alzahrane (2024)	Kingdom of Saudi Arabia (KSA)	Exploratory research, survey-based	58 practitioners and 30 academicians	Academicians and practitioners agree on the importance of FA for enhancing financial reporting credibility, promoting corporate governance, and preparing students for fraud examination, though they differ slightly on curriculum development. Both groups rely on classroom education and the Internet for FA knowledge. Courses should be taught by both academics and practitioners, covering topics like financial statement fraud, bribery investigations, fraud detection, and rules of evidence. Major obstacles include a lack of

				qualified faculty, administrative support, and educational resources.
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**Source: Author’s Compilation**

Table 2.2 critically examines contributions across different studies on FA, highlighting the roles, skills, and techniques vital to the profession. Key findings suggest the importance of integrating FA skills, such as analytical thinking and data mining, into audit processes to enhance fraud detection. Studies also stress the need for a multidisciplinary approach, including IT tools and legal knowledge, while underlining persistent challenges like the lack of structured curricula and qualified professionals. The research encompasses diverse regions, noting that while the USA and Canada lead in FA development, other regions face educational and practical gaps. Common themes include the emphasis on advanced techniques like digital forensics, the significance of ethical considerations in FA, and the role of FAPs in supporting governance and financial transparency.

*2.2.5.2. Literature Related to FAE*

Table 2.3 provides an overview of existing literature on FAE, synthesizing studies that explore its integration into academic curricula, perceptions of its value, and the challenges faced in its implementation. The compilation includes research from multiple contexts, reflecting on how different stakeholders’ (academicians, students, and practitioners) view the evolution and importance of FAE in preparing individuals for the complex landscape of financial fraud.



**Table 2.3: Literature Related to FAE**

<b>Authors</b>	<b>Context</b>	<b>Type of Research</b>	<b>Target Respondent(s)</b>	<b>Findings</b>
Rezaee et al. (1992)	USA	Conceptual study with literature review		Rising fraud and complex global business operations drive demand for FA. It should be integrated into undergraduate and graduate accounting education, especially within the 150-hour program. Challenges include a lack of faculty expertise, insufficient guidelines, and limited financial resources. Forensic accounting offers high-income potential, challenging work, and a market niche for firms.
Rezaee and Burton (1997)	USA	Survey-based study with literature review	196 accounting academicians and 213 certified fraud examiner (CFE) practitioners across the USA	Academicians and CFE practitioners agree on integrating FA into curricula, with academicians favouring integration into existing courses and practitioners preferring standalone courses. FAE is seen as vital for addressing societal needs, improving financial reporting credibility, and supporting corporate governance. Challenges include low faculty interest, limited resources, and rigid curricula. Both groups consider fraud fundamentals, internal control evaluation, and fraud audit methodology crucial, but practitioners emphasize practical skills like interview techniques and legal aspects.
Carnes and Gierlasinski (2001)	USA	Conceptual analysis with a focus on educational and professional trends in forensic accounting		There is a significant shortage of FAE demand for auditors to have strong forensic skills, the academic curriculum has been slow to adapt.
Huber and DiGabriele (2014)		Descriptive research based on literature		Fraud and quantitative methods dominate FA research topics and methods. There is a lack of diversity in FA research topics and methods. The limited variety in topics and methods may

				compromise the overall contribution of FA research.
Andre and Smith (2014)	USA	Empirical study	Senior undergraduate accounting students at a private liberal arts college in Pennsylvania.	Integrating AICPA core competencies into a "Special Topics in Accounting" course significantly improved students' research, communication, and critical thinking skills. The study emphasizes the need to revise accounting curricula to align with the profession's evolving demands, ensuring students gain both technical knowledge and essential soft skills.
Rezaee et al. (2015)	USA	Descriptive research, survey-based	153 academicians (accounting faculty) 105 practitioners (Certified Public Accountants)	FAE is increasingly in demand, with both academicians and practitioners recognizing its value to students, the accounting profession, and business. Most of the 49 suggested topics are deemed important for inclusion in the curriculum. However, practitioners prioritize litigation support and expert witnessing, while academicians emphasize fraud examination. Major obstacles to integration include limited financial resources, instructional materials, administrative support, and faculty interest.
Peterson and Buckhoff (2015)	USA	Conceptual analysis and curriculum development		The authors argue that current accounting education inadequately prepares students to combat fraud, contributing to major corporate scandals. They conclude that without dedicated anti-fraud education, graduates will be ill-equipped to handle the growing complexities of financial fraud.

Kramer et al. (2017)	USA	Survey-based	103 accounting educators from the USA 26 forensic accounting practitioners attending a training seminar	Demand for FA services, including litigation support, expert witnessing, and fraud examination, is expected to grow. Most respondents advocate for teaching FA as a separate course at both undergraduate and graduate levels. Educators cite curriculum constraints, lack of qualified faculty, and insufficient administrative and financial support as key barriers. Practitioners, however, stress the importance of integrating FA into the curriculum and favour experiential learning methods. They prioritize topics like cybercrime, digital forensics, and interviewing techniques more than educators, highlighting a gap between academic offerings and practical needs. Practitioners also value hands-on methods, such as role-playing, data analytics, and internships, more than educators, indicating a need for more real-world applications in forensic accounting education.
Zeytinoglu and Anadolu (2020)	Turkey	Descriptive research, survey-based	85 third and fourth-year students of the Accounting Department at Kütahya Dumlupinar University School of Applied Sciences 80 certified public accountants from the Kütahya Chamber of Certified Public Accountants	Accountants and students anticipate growing demand for FA. Accountants stress the need for educational institutions to provide career support, while students favour innovative teaching methods like case studies and education trips. Both agree that FAE is vital for roles in fraud examination, litigation support, and expert witnessing. Accountants show greater awareness and support for curriculum integration than students.
Ebaid (2022)	Saudi Arabia	Exploratory, survey-based	Accounting students from four Saudi universities	FA integration in Saudi universities is weak, with most students finding current auditing practices inadequate for detecting corruption and fraud. Students are dissatisfied with the current FAE and want more comprehensive coverage. The majority

				favour a dedicated FA course covering fraud fundamentals, types of fraud, cyber fraud, financial statement fraud, and fraud examination methods.
Alharasis et al. (2023)	Jordan	Survey-based empirical study	145 participants, including accounting academics, students, and practitioners from Jordanian public universities and selected public sectors.	The study shows low awareness among students and professionals about FA's role in fraud prevention and detection. It finds a significant correlation between FA and improved fraud prevention but identifies inadequate training and educational integration as obstacles in Jordan. Despite these challenges, Jordanian public universities show strong interest in incorporating forensic accounting into their curricula to enhance public sector practices.
Alkhalail eh et al. (2024)	Jordan	Descriptive research, survey-based	132 accounting students, 40 accounting academics 63 accounting and auditing employees/managers	Educators in Jordan favour incorporating FA into university curricula, while accountants and auditors view it as crucial. The main challenge, as perceived by stakeholders, is the lack of job opportunities. Other significant obstacles include the absence of qualified faculty, limited administrative support, and insufficient educational resources.

**Source: Author's Compilation**

Table 2.3 reveals the growing demand for integrating FA into academic curricula at both undergraduate and postgraduate levels. Key themes indicate a consensus among academicians and FAPs on the importance of FAE for enhancing fraud detection capabilities, although differences exist in preferences for integration methods, with FAPs favouring experiential learning and standalone courses. Challenges such as a lack of qualified faculty, insufficient financial resources, and inadequate curriculum flexibility are repeatedly cited across studies. Regional disparities also emerge, with FAE integration being notably weaker in countries like Saudi Arabia and Jordan compared to the USA. These findings underline the necessity for more robust educational frameworks, greater administrative support, and innovative teaching approaches to effectively prepare future FAPs.

### 2.2.5.3. Literature Related to FA Profession

Table 2.4 presents an overview of literature related to the development and recognition of forensic accounting (FA) as a distinct profession. It compiles various studies that assess the evolution of auditing standards, the degree to which FA meets professional criteria, and the unique challenges faced in different regional contexts. This overview aims to provide insights into the ongoing efforts to establish FA as a legitimate and autonomous profession across the globe.

**Table 2.4: Literature Related to FA Profession**

Authors	Context	Type of Research	Target Respondent(s)	Findings
Vanasco (1998)	USA	Literature review		U.S. auditing standards evolved due to major fraud cases in industries like banking, healthcare, and manufacturing, increasing the responsibilities of auditors, management, and boards in fraud prevention. This shift from detecting fraud to verifying accounts led to an "expectation gap" between auditors and the public.
Huber (2012)	USA	Opinion based paper		FA in USA fulfils the criteria (Pavalko, Horn, Carey and Brante's professional criteria) to become a profession in USA. FA is not a niche within the public accounting profession
Selimoğlu and Altunel (2020)	Turkey	Literature Review	Includes 96 sources, including 35 master's theses, 10 PhD theses, 45 articles, and six books.	The majority of thesis on FA and fraud audit were published in 2011 and later. Most thesis focus on FA rather than fraud audit. Articles reviewed align with the thesis in emphasizing FA over fraud audit. There are very few books on fraud audit and FA; those that exist predominantly cover FA and its professional aspects.

Nortje and Bredenkamp (2020)	South Africa	Cross-sectional design combining literature review and empirical research.	75 commercial forensic practitioners, members of the Institute of Commercial Forensic Practitioners in South Africa.	The five-stage forensic investigation process includes initiation, planning, execution, reporting, and reflection. The study stresses tailoring this process to South Africa's unique challenges and regulatory environment, and highlights continuous training and adherence to ethical standards as essential components.
Alshurafat (2022)	Australia	Qualitative, semi-structured interviews	18 elite FAPs and academics in Australia	FA partly meets professional criteria. To achieve professional recognition in Australia, FA must demonstrate both autonomy and a strong commitment to the field.
Mandal and Amilan (2023)	India	Survey-based study	118 accounting professionals in India	The study found that accounting professionals are generally open to using FAIS, though perceptions of usefulness and fairness vary. FAIS 410 (data analysis) is rated most useful, while FAIS 240 (agency engagement) is rated least. Most FAIS are seen as aligning closely with natural justice principles, particularly regarding fairness in forensic accounting.

**Source: Author's Compilation**

The previous studies explore the progression of FA towards professional recognition. Key findings reveal that in the USA, FA fulfils the necessary professional criteria, while in Australia, FA partially fulfil the criteria to become a profession. Moreover, studies from South Africa and India emphasize the importance of localized approaches, such as tailoring FA processes to regulatory environments and ensuring ethical adherence. The literature also conceded an evolving emphasis on FA over traditional fraud audit, contemplating a shift in academic focus towards professionalization. The findings reinforce that while progress is being made in establishing FA as a distinct profession, challenges related to autonomy, ethical standards, and regional adaptation continue to exist.

The practice of FA is thus increasingly recognized for its role in enhancing fraud detection and prevention as is evident in the literature especially in the developed economies. In emerging economies like Jordan and Turkey, FA practices are still developing, with a

strong focus on improving internal controls and corporate governance through forensic techniques. Several studies highlight the growing importance of integrating FA into educational curricula (Rezaee et al., 1992; Rezaee & Burton, 1997; Akkeren et al., 2013; Rezaee et al., 2015; Tiwari & Debnath, 2017; Kramer et al., 2017; Rezaee and Wang, 2018; Zeytinoğlu & Anadolu, 2020; Kılıç, 2020; Ebaid, 2022; Alharasis et al., 2023; Alkhalaileh et al., 2024; Alzahrane, 2024). FAE is also garnering interest globally, with substantial research conducted in the USA, Turkey, and Jordan. Studies by Rezaee et al. (2015) and Zeytinoğlu and Anadolu (2020) emphasize the increasing demand for FA courses but note significant obstacles, including financial constraints, lack of faculty expertise, and limited curriculum integration. In regions like Saudi Arabia and Australia, the integration of FAE into the broader accounting curriculum is seen as essential for preparing students for the complexities of modern fraud detection. Practical experience, ethical integrity, and multidisciplinary approaches are highlighted as critical components of an effective FAE, as noted by Prabowo (2013) and Tiwari and Debnath (2017). The professionalism of FA is most advanced in the USA and Canada, where the profession is well-regulated and recognized for its contribution to legal and financial investigations (Arslan, 2020). In Australia, the profession is evolving but still faces challenges in achieving full recognition (Alshurafat, 2022). In contrast, regions like Turkey and Jordan are still in the early stages of developing FA as a profession, with a focus on building educational infrastructure and public awareness.

The USA dominates the research landscape in FA, with numerous studies focused on various aspects of the profession, education, and practice. Turkey and Jordan also have significant contributions, particularly in the area of FAE and practice. Australia is another key region with a strong focus on the professionalism of FA and the skills required for effective practice. However, challenges such as the lack of a regulatory framework and public awareness about FA's importance persist, as highlighted by studies like Alzoubi (2023) and Selimoğlu and Altunel (2020). These challenges are mirrored in the Indian context, where FAE and FAR is still emerging and requires substantial development to meet the demands of the profession (Chetry et al., 2023, 2024).

## **2.3 Research Methodology**

### *2.3.1 Introduction*

A well-articulated methodology is essential, as it not only enhances the credibility of the research but also contributes to the broader discourse in the field, potentially informing future practice, policy development, and academic investigation (Guba & Lincoln, 1994). This section details the procedures employed for data collection, analysis, and interpretation.

### *2.3.2 Research Design*

In line with the pragmatist paradigm, the present study starts by understanding the nature of the problem that is to be investigated and then uses all approaches available to investigate the problem (Dillon, 2000; Creswell et al., 2011; Creswell, 2013). Pragmatism, as the chosen paradigm, provides the flexibility to utilize both qualitative and quantitative methods, allowing for a comprehensive exploration of FAE, regulation, and professional practice (Johnson et al., 2007).

A mixed-methods approach has been adopted in the present study. As noted by Venkatesh et al. (2013), mixed methods research integrates both quantitative and qualitative approach, either simultaneously or sequentially, to provide a comprehensive understanding of the research topic.

#### *2.3.2.1 Selection of Sample and Data Collection*

For objective (i), the top fifty countries as per the World Bank Gross Domestic Product, 2022 were sampled for the study. Information about the status of FAR and FAE in these selected nations were gleaned systematically from secondary sources particularly research papers and websites. The details of data collection and analysis are discussed below:

For assessing the level of FAR, research papers, websites of Accounting and Auditing Standard Setting Bodies (AASSBs) or Professional Accounting Body of the selected countries were considered as the source of information. As it is impractical to examine all the educational institutes and universities in the selected nations, hence QS World University Ranking are used as source of information for FAE along with literature.



The basis for ranking the selected countries in terms of FAR are as follows –

- (a) presence of specific FA Standards by AASSBs/Professional accounting Body;
- (b) presence of any statement, code of conduct, guidelines, directives, and procedures on FA by professional institutes; and
- (c) non-existence of any norms for FA practice.

Whereas, the basis for ranking the selected countries in terms of FAR are as follows –

- (a) availability of Undergraduate (UG), Post Graduate (PG) courses and/or diploma & certificate courses on FA by any University and/or College;
- (b) diploma and/or certificate course on FA only by any Professional Institute exclusively for its members;
- (c) Absence of FAE.

For rest of the objectives (ii, iii, iv and v), responses from Chartered Accountants (CAs) who have completed the FAFD course offered by ICAI were collected with the help of structured questionnaire and personal interviews (termed as FAP). The academicians were selected from universities that include FA in their curriculum and possess substantial knowledge about the field. There is a total of 3, 27, 081 CAs in India, according to data fetched from the ICAI, as of April 1, 2021. However, only 10,130 of these CAs have qualified the FAFD course, based on ICAI data as of October 11, 2021. Additionally, according to the University Grants Commission (UGC) data as of November 22, 2021, India has 54 central universities, 397 private universities, and 442 state universities. Further, there are two institute of national importance under Ministry of Home Affairs. Out of these universities, only 82 institutes are providing FAE as a unit or topic or specific programme/specific course/ specialization/elective subject on FA (details in Chapter 3). Academicians from these institutes were selected for collecting primary data for the study. The respondents were selected using judgmental and snowball sampling technique (Rai, 2017; King, 2020). For the quantitative approach, the sample of the study consisted of 354 FAPs and 314 academicians. For the qualitative approach, 53 semi-structured interviews were conducted with the two groups, out of which 31 were FAPs and 22 were

academicians. The sample size required for the study was determined through the performance of Power Analysis (Schoemann et al., 2017). The G\*Power software provides a robust means to calculate the necessary sample size by considering the desired statistical power (Changaranchola & Samantara, 2024). In this study, we achieved a statistical power of 0.95, which surpasses the recommended threshold of 0.80 (Hair et al., 2019). This level of power supports the adequacy of the sample size for the study.

#### *2.3.2.2 Research Instrument*

A structured questionnaire and structured interviews (Silverman, 2015; Alshurafat, 2019) were administered to collect data from FAPs and academicians. Quantitative data were collected using a 5-point Likert scale ranging from 1, which denotes "strongly disagree", to 5, which denotes "strongly agree", supplemented by dichotomous questions (Yes/No), trichotomous questions (Yes/No/Don't Know), and multiple-response questions allowing for the selection of multiple options. The instrument was pilot-tested with thirty participants from each group. Accordingly, the survey instrument was modified.

The empirical section of this study focuses on exploring the requisite skills and techniques, followed by challenges in FAE and FAR, professionalism status of FA and curriculum content and pedagogical approach. The questions to be included in the questionnaire were developed based on studies conducted in various countries (Rezaee et al., 1992; Rezaee & Burton, 1997; Rezaee et al., 2004; Yusof et al., 2007; Seda & Kramer, 2008; Van Akkeren et al., 2013; Hidayat & Al-Sadiq, 2014; Rezaee et al., 2015; Kramer et al., 2017; Tiwari & Debnath, 2017; Rezaee & Wang, 2018; Ibadov & Huseynzade, 2019; Zeytinoğlu & Anadolu, 2020; Kılıç, 2020; Alshurafat, 2021, Ebaid, 2022; Alharasis et al., 2023; Alkhalaileh et al., 2024; Alzahrane; 2024).

#### *2.3.2.3 Time Period*

The data collection for this study was conducted over 15 months, spanning from October 2022 to December 2023. To gather insights from academicians, visits were made to the universities where participants were asked to share their opinions through a structured questionnaire. Those who expressed interest in further participation were subsequently interviewed to gain deeper insights. Similarly, opinions from FAPs were obtained by

visiting their registered offices, ensuring direct engagement and a comprehensive understanding of their perspectives.

#### *2.3.2.4 Data Analysis*

For objective (i), comparative document analysis was employed. This procedure organises document information into categories which relate to specified research questions/categories (Bowen, 2009). For categorising the countries in terms of FAR and FAE, three ranks namely high, medium and low was made. Accordingly, for FAR, “high” rank was assigned if there is existence of specific FA Standards by AASSBs/Professional accounting body of the country, otherwise “medium” rank was allotted. Similarly, for FAE, “high” level was assigned if UG, PG courses and/or diploma & certificate courses are offered by University and/or College, otherwise “medium” rank was assigned. On the other hand, “low” rank was assigned if there is absence of norms for FAR or courses on FAE.

For objective (ii), (iii) and (v), descriptive as well as inferential statistics was employed. The collected data was summarized using descriptive statistics, specifically mean and standard deviation. Given the non-normal distribution of the data, a nonparametric test (Field, 2009), specifically the Mann-Whitney U test, was employed to compare two related samples. Further, the non-parametric “Kruskal–Wallis” test was also used to identify differences amongst groups in terms of experience, while Jonckheere–Terpstra test was conducted to determine whether the trend in the data is significant or not. Moreover, there was a need to reduce the 26 skills identified from the literature into a more manageable number. Therefore, an exploratory factor analysis was necessary. The primary goal of the factor analysis was to group related variables under a broader category (Salkind, 2004). Further, for identification of regulatory challenges for objective (iii), thematic analysis was chosen as a basis for the analysis because it served the exploratory nature of the research (Lincoln, 2007; Al-Shurafat et al., 2024). Thematic analysis is a widely used qualitative analysis technique, suitable for understanding experiences, thoughts, views, or behaviours across a data set (Kiger & Varpio, 2020). This method can be approached in two distinct ways: inductively or deductively. An inductive approach involves deriving themes directly from the data without preconceptions for allowing themes to emerge from the data set (Varpio et al., 2019). In contrast, a deductive approach uses pre-existing codes informed by prior research, guiding the analysis based on predetermined expectations. Given the

limited number of interview-based studies in this field, an inductive approach was adopted for exploration of challenges in regulation, allowing themes to be derived directly from the interview data. The thematic analysis was conducted following the well-established six-step framework proposed by Braun and Clarke (2006): (i) familiarisation with the data, (ii) generating initial codes, (iii) searching for themes, (iv) reviewing themes, (v) defining and naming themes, and (vi) producing the final report. This structured process ensured a rigorous and systematic analysis, leading to a deeper understanding of the key themes emerging from the data.

For objective (iv), given the exploratory nature of the study and the prevalence of diverse knowledge structures, deductive thematic analysis (Sofyani et al., 2022) was selected for qualitative data as the primary analytical framework through the lens of the theory of professionalism. The themes have been analysed for internal coherence, consistency and differentiation (Braun and Clarke, 2006). Participant identities and affiliations have been kept confidential to ensure participant anonymity and assess the integrity of the research findings, as recommended in research ethics (Patton, 2002; Anney, 2014). Further, to ensure the quality of the data, the criteria provided by Guba and Lincoln (1982) was adopted. Guba and Lincoln (1982) introduced four key criteria for evaluating the trustworthiness of qualitative research: credibility, transferability, dependability, and confirmability. These criteria correspond to internal validity, external validity, reliability, and objectivity in positivist research (Schwandt et al., 2007). Firstly, to ensure the trustworthiness of this study, we employed "peer debriefing" and "member checking", as recommended by Lincoln and Guba (1985). In this study, feedback was gathered from experts in practice and academia to enhance the quality of the findings (Bitsch, 2005). These peers reviewed the background information, data collection methods, data management, data analysis procedures, and research findings (Pitney & Parker, 2009). Member checking was also employed, where researchers and respondents collaborate to verify data accuracy (Lincoln et al., 1985). To validate the credibility of the findings, the results were sent to the FAPs and academicians who provided the data. This process ensured that there were no internal conflicts or inconsistencies by verifying the interpretation of the data before finalizing the report. Secondly, the transferability in qualitative research refers to how well the findings can apply to other contexts or groups (Bitsch, 2005). To ensure this, the study collected detailed descriptive data (Li, 2004), enabling the author to compare the study context with other possible contexts where the

findings might be applicable (Pandey & Patnaik, 2014). Thirdly, dependability in qualitative research refers to the consistency of findings over time (Bitsch, 2005). The study employed an inquiry audit involving an external researcher who was not part of the research process or its outcomes to enhance dependability. This external researcher was thoroughly briefed on the data collection methods and decision-making processes. The inquiry audit provided valuable feedback from an expert in the field, contributing additional insights for clearer and more reliable findings. Fourth, confirmability refers to the extent to which other researchers can verify the findings of a study (Baxter & Eyles, 1997). Two methods are commonly used to ensure confirmability: maintaining an audit trail and keeping a reflexive journal (Lincoln & Guba, 1985; Bowen, 2009). This study followed an audit trail, clearly outlining each step from the start to the final findings (Bowen, 2009; Pandey & Patnaik, 2014). The process involved collecting raw data through field notes, summarizing and analyzing this data, and organizing it into themes and conclusions.

#### *2.3.2.4 Diagnostic Test*

To ensure the normal distribution of data, this study uses Kolmogorov-Smirnova (K-S) and Shapiro-Wilk tests. In K-S and Shapiro-Wilk test, a significant value (Sig. <0.05) indicates a deviation from normality. The result shows that all the statements are highly significant, indicating that the distribution was not normal (Pallant, 2007). Further, the reliability of the various statements in the questionnaire was observed by testing key reliability statistics Cronbach's alpha for measuring internal consistency between elements (Gangwani, 2021). The result of Cronbach's alpha shows that the overall reliability coefficient was high (0.972), indicating the robustness of the survey questions in generating reliable results.

## **2.4 Conclusion**

This chapter highlighted the theoretical and empirical evidence in relation to FA coupled with integrating the methodology employed to study FAE, FAR, and practice. To summarise, FA is increasingly recognised for its vital role in fraud detection and prevention, particularly in developed countries. It was observed that in emerging economies, FA practices are still maturing, with initiatives aimed at improving internal controls and corporate governance. Globally, FAE is gaining traction, but problems such

as funding limits, inadequate faculty competence, and curricular gaps continue to persist. While FA is well-established and regulated in the United States and Canada, professionalisation in other countries like Australia, Turkey, and Jordan faces considerable challenges.

Turning to the methodology section, a mixed-methods approach adopted in this study was justified through a detailed examination of its suitability, considering the complexity and multidimensional nature of the research objectives. The research design, grounded in a pragmatist paradigm, allowed for a robust exploration of the skills required for FAPs, the challenges in FAE and FAR, and the broader implications for the profession in India and beyond. The results of this study, detailed in the subsequent chapters, offer valuable contributions to both the academic literature and practical advancements in FAE, FAR, and professional development.