

The Chief Risk Officer: a study of roles and responsibilities

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Abstract Enterprise risk management is becoming an important component of corporate governance as evidenced by the many firms that have either created the position of a Chief Risk Officer (CRO) or elevated the CRO to the membership of the Top Management Team. However, few studies have explored the roles and responsibilities of the CROs. The aim of this study is to provide some empirical evidence about the roles and responsibilities of CROs based on the Mintzberg's classical managerial roles model. The study makes use of a dataset obtained from Lexis–Nexis academic to conduct a qualitative content analysis of press releases from 106 US firms that hired a CRO between 2010 and 2014. The results reveal that the key roles and responsibilities of the CROs can be mapped into the three main Mintzberg's classical managerial roles of interpersonal (leader, liaison), informational (monitor, spokesman), and decisional (entrepreneur, resource allocator) implying that a CRO is a leader, a strategist, and an enabler. The office of the CRO is also gaining pre-eminence and is more diverse as evidenced by the reporting structure and gender representation whereby over 90% of the hired CROs reported to the CEO, chairman, or President, and over 35% of the hired CROs were females, respectively. A study of what CROs do will facilitate the setting of the right expectations about the CROs' job functions and contribute to an understanding of the value and impact of the CROs to the organizational strategy especially in the areas of risk control, risk management, and risk mitigation.

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Introduction

During the 2005–2008 period, the US economy experienced a significant financial crisis (Stein 2016) which was largely attributed to the risk appetite and deficient risk control and mitigation strategies of the key players in the Finance, Insurance, and Real Estate industries (Taleb et al. 2009; Stulz 2009). Thereafter, a number of regulators and practitioners were called for improvements in the management and oversight of risks in the aforementioned and other related industries (Kirkpatrick 2009; Green and Jennings-Mares 2008). One of the strategies adopted by firms in addressing risks is the implementation of an Enterprise risk management (ERM) strategy and mandating a top-level officer, usually a Chief Risk Officer (CRO), with the oversight of the ERM initiative.

In the recent past, the management of risk at the enterprise level has been facilitated by the emergence and acceptance of two main industry-sanctioned ERM frameworks that serve as the reference points for firms seeking to implement ERM strategies (Lalonde and Boiral 2012). These ERM frameworks are the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2004 ERM framework (COSO 2004) and the International Organization for Standardization (ISO) 31000:2009 ERM framework (ISO 2009). The availability and applicability of the aforesaid ERM frameworks are attributed to the significant increase in the number of firms adopting ERM strategies. For instance, in 2009, only 9% of firms reported having a complete ERM strategy in place while in 2014, the number had risen to almost 25% (Beasley et al. 2015). Firms adopt ERM strategies in order to address internal or external tactical or strategic business needs. Internally, firms are implementing ERM strategies in order to streamline business processes and ultimately appropriate the potential business values accruing from effective ERM implementations (Sprcic et al. 2016; Hoyt and Liebenberg 2011). Conversely, external factors include the need to comply with the government regulations and industry standards. Specific regulations include the Sarbanes–Oxley Act (Sarbanes and Oxley 2002), the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rules (HIPAA 1996), and the Dodd Frank Wall Street Reform and Consumer Protection Act (US House of Representatives 2010). An example of an industry standard is the Payment Card Industry Data Security Standards (PCI DSS 2008).

In spite of the reported benefits associated with successful ERM implementations, there are no stipulated laws or industry regulations that require firms to specifically disclose or report how they are implementing ERM strategies. As such, academic researchers are often faced with a shortage of publicly available and objective datasets suited to investigating ERM and its various related concepts. Often, the researchers have used the hiring of a Chief Risk Officer (CRO) to signify the adoption or implementation of an ERM strategy (Liebenberg and Hoyt 2003; Pagach and Warr 2011; Razali et al. 2011). Despite the interest in the ERM research

and the use of CROs' hiring as a proxy for ERM implementation, there is a dearth of research studies that specifically focus on the roles and responsibilities of the CROs—who for the most part, are in charge of the ERM strategy (Donnelly 2011).

Academic research on ERM is still in its infancy and a study of the roles of the CRO will contribute to the research on ERM theory and practice. The aim of this study is to explore and aggregate the roles and responsibilities of CROs using the management model proposed by Mintzberg (1971, 1990). An understanding of the roles and responsibilities of the CROs not only adds to the ERM literature, but also specifically extends the research on the CROs with implications for the industry and academia in a number of ways. To our knowledge, this is the first study to specifically focus on the roles and responsibilities of the officer in charge of ERM strategy namely the CRO. Secondly, the study contributes to the growing body of ERM research by exploring the managerial roles and responsibilities of CROs based on an objective dataset of firms that hired a CRO.

The study also investigates the characteristics of these CROs such as their gender, years of experience, and the reporting structure. Organizational theorists argue that there are various organizational factors that influence behavior namely career structures, processes, norms, and organizational structures, and Devers et al. (2008) have developed a framework that relates risk and organizational structure. Thus, an understanding of the roles and responsibilities of the CRO vis-a-vis other top management team members will facilitate the establishment of the appropriate organizational structure which is important in implementing a successful ERM strategy. Also, a study of what CROs do will facilitate the setting of the right expectations about the CROs' job functions and contribute to an understanding of the value and impact of the CROs to the organizational strategy especially in the areas of risk control, risk management, and risk mitigation. Furthermore, an appreciation of the role of the CRO and consequently the contribution of these roles to the overall organizational strategy will facilitate an understanding of the placement of the CRO in the organizational hierarchy and the contribution of the CRO to the corporate governance. For the academy, the results are useful in the ERM curriculum design and may spotlight which skills and knowledge areas academics should focus on in preparing the future CROs to fulfill the identified roles and responsibilities. The identified roles and responsibilities may also serve as guidelines for the industry when developing continuous educational programs aimed at the practicing CROs.

Towards this end, the study makes use of a sample of US firms that issued a press release following the hiring of a CRO between 2010 and 2014. The press releases are accessed through content analysis of data in the Lexis-Nexis academic wire index. The rest of the study is organized as follows. The next section provides a summary of the literature that has addressed the various facets of ERM and CRO. After that is a discussion of the theoretical orientation followed by the description of the sampled data, analysis, and interpretation of the results. The study concludes by discussing the implication and avenues for future research.

Background

Prior research on enterprise risk management

Firms are getting considerably larger and more complex partly due to the advancement in technology, innovations in business processes, and the globalization in the business environment. As a result, there is an unprecedented increase in the complexity and rapidity of business risks which has rendered the traditional silo-based risk management strategies infeasible for modern firms. To address these business risks, researchers and practitioners have advocated the use of an overarching risk management model that encompasses the whole organization known as ERM. Consequently, in the recent past, a number of researchers have explored various ERM issues. For instance, Liebenberg and Hoyt (2003) used the hiring of a CRO to investigate factors that led firms to adopt ERM strategy. The results from that study indicated that, in the finance and banking industry, highly leveraged firms are more likely to adopt an ERM strategy. Elsewhere, Beasley et al. (2008) investigated how stock markets react to the news that firms have adopted an ERM strategy. Using a sample of 120 US firms, they reported that in the non-financial industries, markets react positively to the news about the adoption of an ERM strategy by both the large firms and those firms experiencing earnings volatility.

Researchers have also examined if and how an ERM strategy enhances the shareholders' value. For instance, McShane et al. (2011) explored the relationship between ERM adoption and the subsequent value of the firm. Based on a dataset obtained from 82 insurance companies, they demonstrated that the shareholders' value was positively impacted by the adoption of an ERM strategy. Table 1 provides a more detailed view of the studies that have explored the various aspects of ERM. In many of these studies, the adoption of an ERM strategy was proxied by the hiring of a CRO. However, from our literature review, there is a dearth of research studies that explore the roles and responsibilities of the CRO.

Following the 2005–2008 economic meltdown, the role, responsibilities, and positioning of the CRO in the organizational Top Management Team (TMT) has gained some traction. As such this study focuses on these officers who are usually in charge of ERM programs in many organizations.

The Chief Risk Officer

The Chief Risk Officer (CRO) position has existed for more than 20 years and was coined by James Lam, who was also the first person to hold the position at GE capital in 1993 (Lam 2009). Although the CRO position has historically been associated with the finance and banking industries, it is now gaining prominence in the other industries too. Similarly, the CRO position has emerged as one of the most important positions in corporate governance as firms seek to respond to the increasing number of regulatory requirements as well as the rising arrays of business risks (Beasley et al. 2015; Lam 2001).

Table 1 A subset of studies that have explored various ERM concepts

Authors	Research question	Dependent variable	Results
Liebenberg and Hoyt (2003)	Factors contributing to the adoption of ERM	CRO hiring	Firms with higher financial leverage are more likely to hire a CRO in the financial and banking industries
Beasley et al. (2008)	How do markets react to the hiring of CROs?	CRO hiring	Firm size and earnings volatility positively associated with CRO hiring while leverage and cash ratio are negatively associated with CRO hiring for firms in the non-financial industries
Gordon et al. (2009)	Is ERM related to firm performance (uncertainty, industry competition, firm size, complexity, Board's monitoring)?	ERM implementations	For the high performing firms, industry competition, firm complexity, firm size, board monitoring have a significant impact on ERM implementation
Pagach and Warr (2011)	Firm characteristics and ERM adoption	CRO hiring	Large firms, firms with more risk (cash flow volatility), and (return volatility) are more likely to hire a CRO
Hoyt and Liebenberg (2011)	Does ERM strategy enhance firm value?	ERM program/activity (ERM, CRO, risk committee etc.)	Firm size and institutional ownership are positively associated with ERM program/activity while leverage and internal diversification are negatively related to the ERM program/activity
McShane et al. (2011)	Relationship between ERM and firm value	Firm value (Tobin's Q)	Shareholder value positively related to traditional ERM implementation levels but no additional value from higher ERM implementation levels
Golshan and Rasid (2012)	Determinants of ERM adoption (Malaysian publicly listed firms)	ERM adoption	Firms with higher financial leverage and with a Big Four auditor are more likely to have a form of ERM framework in place
Grace et al. (2015)	Which aspects of ERM add value to the firm?	Cost efficiently and revenue efficiency	Cost and revenue efficiency positively associated with the ERM strategy. The following ERM initiatives (a simple economic capital model, a dedicated risk manager that is a cross-functional committee, a risk manager reporting to the board or CEO)

Table 1 continued

Authors	Research question	Dependent variable	Results
Lundqvist (2015)	What motivate firms to implement risk governance?	Traditional risk management and risk governance	Level of risk governance in a firm is related to the size of the firm, leverage, and dividend payments, and the CEO's influence on the board
Sprčić et al. (2016)	Does ERM influence market value	ERM adoption	ERM has a short term effect on firm value in the non-financial industries
This study	Roles, duties, and characteristics of CROs	Chief Risk Officer	Six roles and responsibilities are more prominent for a CRO. These roles are interpersonal (leader, liaison), informational (monitor, spokesman), and decisional (entrepreneur, resource allocator)

Despite the importance of the CRO position in the ERM strategy, the existing literature on the CRO position is mainly prescriptive and consists of anecdotes about their roles and responsibilities from the practitioner and industry journals. A few academic researchers have explored some concepts related to the role of a CRO. A case in point is Ward (2001) who used a sample of 30 firms to carry out an exploratory study on the activities of CROs and reported six major functions which CROs are involved in. These CRO functions include the design and establishment of an ERM strategy, advising organizational functional heads on risk management strategies, monitoring the effectiveness of risk management initiatives, coordinating the communication of risk management strategies, and acting as a liaison in the interchange of information on risk management. Additionally, Power (2005), associated the role of the CRO with the implementation of an ERM strategy and argued that the creation of a CRO position sends a signal to the capital markets that an organization is serious about the ERM strategy. Finally, Mikes (2010) used a sample of 15 CROs to develop three archetypal roles of the CROs. The first CRO archetype: chief compliance officer, is based on the strong historical role of the ERM in regulatory compliance and reporting. The second role: strategic controller, views CRO as a partner in the overall organizational business management team with important duties in the setting and execution of corporate strategy (Atkinson 2007). In the third role: the CRO acts as a strategic advisor and has access to the top management team where they offer advice on the ERM strategy. These studies are informative and this study builds on them by exploring a similar management paradigm based on the classical Mintzberg's managerial roles model while utilizing a more current and expanded dataset.

The position of the CRO will continue to gain pre-eminence as firms change their view of ERM as a management concept to an important strategic resource that creates shareholders' value through risk-based decision making and capital allocations (Lee and Shimpi 2005). Additionally, as ERM becomes more important,

firms are realizing the importance of the CRO role and are elevating the position similar to other long-established executive positions such as the Chief Executive Officers, Chief Finance Officers, Chief Information Officers, or other top-level executive positions that have been in existence for a while (Schubert 2004). However, unlike the aforementioned executive positions, the specific ideas and practices of what CROs do, how they do it, and their knowledge and skills have not been articulated in a unified domain and this has led to a fuzzy role of the CRO in corporate governance (Mikes 2010). Due to the strategic nature of ERM, the role of the CRO is comparable to that of a CFO or CIO who is in charge of the corporate finance and IT governance, respectively. For instance, as an executive level manager, the CIO's focus is on the organization's strategy and processes with the goal of creating business value through efficient and effective use of IT resources (Al-Taie et al. 2014). Likewise, the CRO should align the ERM with the corporate strategy and ensure business value creation through risk control and mitigation strategies. Although these two roles differ in their specific responsibilities, they are nevertheless similar from the management point of view. They both work at the corporate level and strive for a mutual understanding with the CEO and other members of the TMT. However, the role of the CRO has been under-studied and requires more attention and clarity.

Mintzberg model for managerial roles

The classical roles of a manager are planning, organizing, coordinating, commanding, and controlling (Fayol 1950). However, research on managerial work has evolved and as a result, there are other categorization of managerial roles and responsibilities which incorporate a wider spectrum (Kraut et al. 1989; Luthans 1988; Mintzberg 1990; PMI, 2013). This study adopts the Mintzberg model for managerial roles (Mintzberg 1971, 1990). A manager is defined as an individual in charge of an organization or a functional unit with formal authority and status (Mintzberg 1990). As Table 2 shows, the ten Mintzberg's managerial roles are grouped into three main categories namely interpersonal, informational, and decisional roles and each category has a subset of roles which focus on specific duties and responsibilities. The interpersonal roles entail interacting and engaging with others while informational roles involve the collecting, processing, and disseminating/exchanging information and the decisional roles that involve in making strategic business initiatives that impact a firm.

Mintzberg's roles model has been used before in the IT literature to investigate the managerial roles of Chief Privacy Officers (Kayworth et al. 2005), Chief Digital Officers (Horlacher and Hess 2016), and Chief Information Officers (Gottschalk 2002; Grover et al. 1993). Based on the six managerial roles, specifically, leader, liaison, monitor, spokesman, entrepreneur, and resource allocator, Grover et al. (1993) found that CIOs differ from manufacturing and sales executives in the relative importance that they place on managerial roles and that for the CIO, the entrepreneur role is the most important. The hierarchical level and the specific job function may determine how much emphasis a managerial role receives according to the Mintzberg's view. For instance, to the sales manager, interpersonal

Table 2 Mintzberg's managerial roles

Interpersonal roles	
Figurehead	A legal authority and symbol in the organization who presides at ceremonies, signs legal documents, receives visitors etc.
Leader	Exemplifies the relationships with subordinates and includes strategies for motivating and developing/training the subordinates
Liaison	Involves lateral and horizontal communications (peers, government, customers, suppliers) aimed at bringing information to the organization. Establishes and manages networks/relationships
Informational roles	
Disseminator	Communicate externally (government, public) and internally (owners, employee groups, top management) information to subordinates
Spokesman	Communicate with the outsiders on firm policies, performance, and plans. Serves as an expert in other outside entities
Monitor	Analyze the environment (employees, other units, customers, suppliers) for information
Decisional roles	
Entrepreneur	Initiator and designer of many change control projects and programs
Disturbance handler	Deals with corrections/disturbances that have to be made to the business processes
Resource allocator	The allocation of resources used in the tactical and strategic projects (who gets/does what)
Negotiator	Negotiates with internal and external groups

relationships may be more important while for the higher-level executives such as CEOs, more emphasis would be placed on the external roles such as liaison, spokesman, and figurehead (Pavett and Lau 1983).

Additionally, Horlacher and Hess (2016) described the managerial tasks and roles of a Chief Digital Officer (CDO) and reported that in addition to collaborating with the CIOs, CDOs focus primarily on the strategic (entrepreneur, leader) and communication (spokesman) aspects of the digital transformation. Elsewhere Kayworth et al. (2005) reported that there is no single managerial role that is most important for a Chief Privacy Officer (CPO) but rather, multiple roles are required of CPOs. To meet these multiple role requirements, effective CPOs must possess strong business, communications, and technical skills. Table 3 contains a subset of other studies that have adopted Mintzberg's managerial roles model in investigating the roles of various corporate officers.

Research method and data collection

The research method adopted in this study is qualitative content analysis, a flexible method for analyzing text data (Cavanagh 1997). Qualitative content analysis is widely used in psychology and other related disciplines, but it has recently gained pre-eminence in the management disciplines. In content analysis, the researcher is focused on the content or contextual meaning of text in a communication language

Table 3 A subset of studies adopting Mintzberg's managerial roles model

Authors	Research question	Study period	Source of data	Research method	Results
Grover et al. (1993)	Investigates the managerial roles of the Chief Information Officer (CIO)	1991	111 CIOs and Information Systems (IS) middle managers from 1991 Fortune 1000 companies	Survey	CIOs differ from manufacturing and sales executives in the relative importance they place on managerial roles. No differences between CIOs and finance executives or between CIOs and IS middle managers
Karlsen et al. (2002)	Investigates the emphasis placed on different managerial roles of IT executives and IT project managers	2000–2001	IT executives (128 usable responses) and IT project Managers (80 usable responses) in Norway	Two surveys	Significant differences between IT executives and IT project managers in 4 out of 6 managerial roles. IT executives emphasize the monitor role while IT project managers emphasize the leader, resource allocator and entrepreneur roles
Kayworth et al. (2005)	Examines the critical managerial roles of Chief Privacy Officers	2002–2004	In-depth interviews at 3 large firms (8 officers) and secondary data sources	Case study methodology	Multiple managerial roles are required of CPOs. To meet these multiple role requirements, effective CPOs must possess strong business, communications, and technical skills
Gentry et al. (2008)	Have changes in the workplace coincided with shifts in the importance of managerial skills over the past 15 years?	1988–1992; 2004–2006	7389 managers from 1988 to 1992 and 7410 managers from 2004 to 2006	Survey	Managerial skills important in the 1980s are relevant today. However, the importance of “relationships,” “administrative/organizational ability,” and “time management” have shifted over the last 15 years
Horlacher and Hess (2016)	Investigate what a Chief Digital Officer (CDO) does	2014–2015	Interview with four Chief Digital Officers from various industries	Case study interviews	CDOs take on (1) the strategic aspects of the digital transformation (devise and implement digital strategies as entrepreneurs and (2) the communication aspects (counter cultural resistance as spokespersons and leaders)

(Tesch 1990). The text data may be organized under different formats such as verbal, print, or electronic media. Moreover, the text data may be obtained from interviews, open-ended survey questions, focus groups, or print media sources such as articles, newspapers, or magazines (Konracki and Wellman 2002).

In qualitative research, the sampling strategy is mainly driven by the methodology and research topic, and not by the need for generalizability of the findings (Higginbottom 2004). The aim of this study is to improve our understanding of the role and responsibilities of the CROs as perceived by the members of the Top Management Team (TMT). The study is based on a dataset that was gleaned through a content analysis of press releases issued by US firms following the hiring of a CRO from January 2010 to December 2014. This study uses random purposive sampling (Patton 1990; Creswell 2013), a technique that is suited to qualitative content analysis studies that target informants who are knowledgeable about the research topic. In this study, the key informants are the members of the TMT who introduced the hired CROs through the press releases. Using the members of the TMT as the key informants, the researchers hope to ensure the dependability and stability of the data over time as well as the transferability of the results to other contexts (Lincoln and Guba 1985). Dependability, stability, and transferability are key elements in establishing credibility in qualitative content analysis research (Graneheim and Lundman 2004).

The firms selected for this study are based in the US and the dataset was obtained based on the occurrence of an organizational event (CRO hire) from the Lexis–Nexis Academic. The dataset represents information on firms that hired a CRO between January 2010 and December 2014 and issued a press release announcing the hire. The use of a single geographical region (US) as well as a single organizational event (CRO hiring) ensures homogeneity of the study participants and minimizes the differences between the groups (Burmeister 2012). In this study, the organizational event data were plausible based on its objectivity derived from the fact that many firms publicly issue a press release when they hire senior executives (Fee and Hadlock 2004). Searches using the keywords “hire,” “employ,” “new,” or “create” together with various variations of the CRO titles and acronyms were carried out.

In order to study the roles and responsibilities of the CROs, an exhaustive review of each press release was done. As shown in the Appendix, a press release usually includes, among others, information about the officer being hired and an introduction section by a member of the TMT of the hiring firm. The introduction part usually states why the firm is carrying out the hiring and may state the roles and responsibilities of the officer being hired. More often, the press release also includes the nature and years of experience, previous accomplishments, educational background, age, and the organizational reporting structure associated with the hired officer.

Data analysis

In content analysis, a unit of analysis is defined as the basic unit of text that needs to be classified and may be represented by a letter(s), word(s), sentence(s), paragraph(s), or an entire document (Robson 1993). In this study, the unit of

analysis is based on individual themes and is expressed in an entire document (press release). The use of a theme as a unit of analysis in this study is justifiable because a press release expresses the idea of interest (Minichiello et al. 1990). The author defined the unit of analysis as the press release/CRO hire and not the firm because there were some firms that hired more than one CRO within a calendar year either due to job rotation, retrenchment, or other unstated reason.

During the data coding process in content analysis, researchers make use of any of the three main approaches namely conventional, directed, or summative. These coding approaches are differentiated by how the data are coded and how the codes are generated (Hsieh and Shannon 2005). This study adopts the directed content analysis approach, a more structured process, whose tenet is to validate or conceptually extend a theoretical framework or model. By making use of an existing theory or a research framework, researchers identify key variables or concepts that serve as the initial coding categories (Potter and Levine-Donnerstein 1999). In this study, Mintzberg's managerial roles model serves as the initial framework to identify the main roles and responsibilities of the CROs.

A coding manual that was structured in such a way that it provided uniformity, consistency, and completeness of data collection was developed using Microsoft Excel. The worksheet included columns with the entries for the date the CRO was hired, the name of the company, CRO title, and designations for whether the CRO was hired from within the firm or was an outsider, age, educational background, reporting structure, years of experience, introduction, roles, and responsibilities. More columns were appended to reflect the ten roles exemplified in the Mintzberg's managerial roles model. The coding process entailed reading the section of the press releases detailing the roles and responsibilities of the hired CRO and coding them based on keywords that correspond to the roles or responsibilities they exemplified as outlined by the Mintzberg's managerial roles model.

A coding manual is recommended when using multiple coders because it ensures the consistency of the coding process (Weber 1990). Each document was reviewed by the author and a research assistant separately and the extracted data entered into the coding worksheet. The coding was preceded by a pilot test that harmonized the coding before the full sample was analyzed (Schreier 2012). As is common in content analysis, there were coding differences which were discussed and resolved through consensus (Elo and Kyngäs 2008). The inter-rater reliability statistics for the ten roles corresponding to the Mintzberg's managerial roles model were computed and refined through the coding process and ranged from 0.84 to 0.91. Neuendorf (2002) argues that the reliability of content analysis studies using human coders should be based on the amount of agreement or correspondence among the coders. The values for the inter-coder reliability were well above the 0.8 sufficiency threshold (Cohen 1960; Landis and Koch 1977). Eventually, the data were merged into one document before proceeding with the analysis. While this manual process was time consuming, it provided better information than automated data retrieval "bots" which may omit some information and present ethical challenges (Allen et al. 2008).

Results and interpretation

To ensure the credibility of content analysis studies, it is important to select the most appropriate sample size (Graneheim and Lundman 2004). However, there are no common rules stipulating the acceptable sample size in qualitative content analysis studies. Oftentimes, the optimal sample size is based on the purpose of the study, research question, or the richness of the research data.

Between January 2010 and December 2014, there were 152 occurrences of press releases denoting the hiring of a CRO. Although the unit of analysis was the press release, there were 15 occurrences that were eliminated because they were duplicates and the roles and responsibilities associated with the earlier press releases were not significantly different from the latter one or vice versa resulting in only one press release being included in the sample for a total of 137 occurrences corresponding to 137 firm years and 125 unique firms. In line with the unit of analysis, the study is based on the 137 firm years henceforth referred to as the firms of which 115 (84%) were publicly traded firms while 22 (16%) were privately held firms.

Out of the 137 firms in the sample, 106 (78%) clearly stated the general roles and responsibilities of the hired CROs. This study is based on the 106 firms and their breakdown by year, ownership, and industry affiliations as shown in Table 4.

The sampled firms used various titles to refer to their head of risk management. The titles were Chief Risk Officer, Vice President and Chief Risk Officer, Senior Executive and Chief Risk Officer, Executive Vice President and Chief Risk Officer, Global Chief Risk Officer, among others. Of the 106 CROs in the sample space,

Table 4 CROs' hiring between 2010 and 2014

Years	Public		Private		Total	
	#	%	#	%	#	%
2014	19	90.5	2	9.5	21	100
2013	19	67.9	9	32.1	28	100
2012	22	73.3	8	26.7	30	100
2011	9	75.0	3	25.0	12	100
2010	14	93.3	1	6.7	15	100
Total	83	78.3	23	21.7	106	100
SIC code	Industry				%	
10–14	Mining				0.8	
20–39	Manufacturing				4.0	
40–49	Transportation, communications, electric, gas, and sanitary services				4.8	
52–59	Retail trade				0.8	
60–67	Finance, insurance, & real estate				86.3	
70–89	Services				2.4	
91–99	Public administration				0.8	

35% were females, 59% were hired from within the firms, 32% were hired from outside the firm, and 9% were promoted to the CRO position. The average years of experience of the CROs was 23.6 years and 82% of the CROs reported to the CEO, President or Chairman. The dominant undergraduate degree majors for the CROs were accounting, economics, business administration, finance, and a few actuarial sciences. At the graduate level, MBA was the dominant degree while a significant number of CROs had CPA certifications.

Managerial roles and responsibilities of Chief Risk Officers

As earlier mentioned the study adopts the Mintzberg's classical framework for managerial roles to investigate the most dominant roles for the CROs. The goal of this study goes further than just identifying the roles and responsibilities of the CROs but also formalizes them using a test model (Mintzberg's framework for managerial roles). From the press releases, the researchers took each description of the CRO's role and responsibilities and mapped it to the specific management role that closely fits Mintzberg's managerial roles framework. The most dominant role was leader with 105 data points followed by liaison and monitor each with 103 data points, entrepreneur with 98 data points, and spokesman at 95 data points. The other roles and their accompanying data points were resource allocator (90), disseminator (38), disturbance handler (34), and negotiator (20). Table 5 contains a breakdown of the roles from the CROs' hiring announcements data. The values in Table 5 are generated from raw counts and are ranked based on the order of prevalence from the highest to the lowest as follows; leaders (1), liaison (2), monitor (2), entrepreneur (3), spokesman (4), resource allocator (5), disseminator (6), disturbance handler (7), and negotiator (8) as illustrated in Fig. 1.

A key characteristic of the qualitative content analysis research is the richness of the collected data (Moretti et al. 2011). Content analysis researchers have advocated the use of quotations from transcribed text to indicate the trustworthiness of the results (Polit and Beck 2012) as well as conformability (Lincoln and Guba 1985). As such, Table 6 shows a sample of representative quotations from the press releases and their corresponding matched roles. The table shows the name of the firm, the name of the hired CRO, and the year in which the CRO was hired.

The managerial roles of the CRO as well as the relationships with the ERM unit, internal, and external environmental entities are summarized and depicted in the conceptual model shown in Fig. 1. The numerical values next to the roles represent the importance of the roles based on the press release data with leader (1) appearing as the most dominant one followed by both the liaison (2) and monitor (2) while entrepreneur (3) appears third. The CRO assumes the leadership of the ERM strategy and allocates resources that are utilized in entrepreneur business value-creating initiatives. Also, the CRO has to engage with other entities that are either internal to the organization (TMT members, functional unit heads) or external to the organization (government agencies, competitors, business partners, professional organizations). These interactions are represented by the monitor, liaison, spokesman, disseminator, and negotiator roles. From time to time, the CRO assumes the

Table 5 Summary of CROs' roles based on Mintzberg's framework

Interpersonal roles		Informational roles			Decisional roles				
Leader	Liaison	Monitor	Spokesman	Disseminator	Entrepreneur	Resource allocator	Disturbance handler	Negotiator	
105	103	103	95	38	98	90	34	20	
Leader		Enabler			Strategist				
CROs are in charge of ERM and spend a significant amount of their time building and maintaining relationships		CROs use their expertise in risk management to analyze the environment for information that might impact risk management			CROs play a significant role in the overall organizational strategy by planning, initiating, coordinating, and managing risk management change control projects and programs				

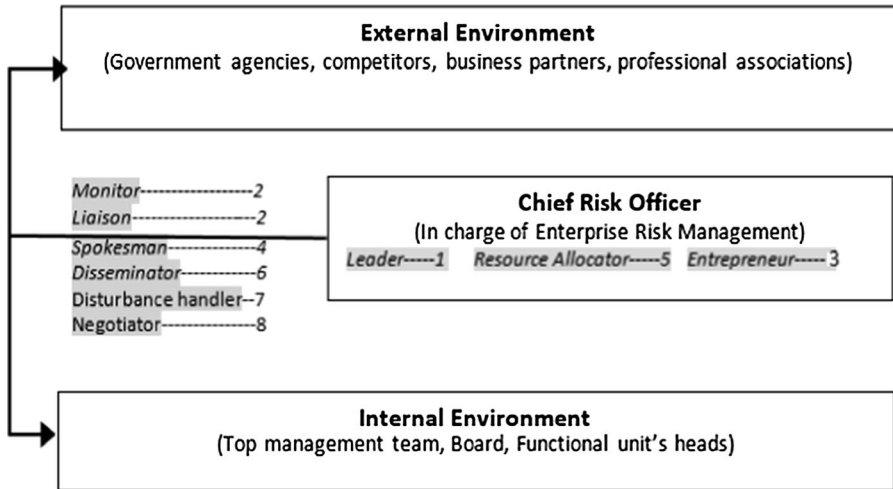


Fig. 1 CROs roles model BASED on Mintzberg’s managerial framework

role of a disturbance handler especially when implementing strategies that assure compliance with new government regulations or following a lapse in compliance initiatives.

The following section outlines a breakdown of the roles of the CRO based on the data obtained from the press releases and the Mintzberg’s managerial roles model.

Interpersonal roles

As shown in Fig. 1, the two most dominant interpersonal roles for the CROs are those of a leader (1) and a liaison (2).

Leader

The hiring of a CRO symbolizes a firm’s commitment to the ERM implementation or adoption while concurrently sending a signal to the stakeholders that the firm is committed to the ERM strategy (Ward 2001). As a leader, the CRO is responsible for hiring, training, supervising, and motivating a cadre of specialized personnel (Mintzberg 1990). Also, by leading the ERM initiative, the CRO acts as the figurehead or champion that symbolizes the organization’s ongoing commitment to the control and mitigation of the various organizational risks (Power 2005). The importance exhibited by the CRO’s leadership role is illustrated through empirical studies that have reported a positive capital market reaction to the hiring of a CRO (Beasley et al. 2008).

The leadership role of the CRO is also exemplified when the CRO participates in the organization’s policy and strategic decision-making processes (Lee and Shimpi 2005), a concept typified by the reporting structure. In this study, 82% of the CROs reported to either the CEO, the President, the Chairman, or to the Board. A CRO



Table 6 Sample roles and responsibilities of CROs based on the Mintzberg's framework

Leader	... will be responsible for the oversight of Unum's ERM program... <i>Unum (NYSE:UNM)</i> —Steven A. Zabel-2013	...is responsible for the company's full spectrum of risk management, including Enterprise Risk, Compliance Risk... <i>Regions Financial Corporation (NYSE:RF)</i> —Matthew Lusco-2010	...is responsible for identifying, assessing and prioritizing risks... <i>Lincoln Financial Group (NYSE:LNC)</i> —John Rhodes-2012
Liaison	...work closely with TCF's Board of Directors, executive management team and business line leaders to provide effective oversight ... <i>TCF Financial Corporation ("TCF") (NYSE:TCB)</i> —James Costa-2013	...is the executive liaison to the Board of Directors' ERM Committee... <i>Tri-County Financial Corp. (OTCMKTS:TYFG)</i> —James Burke-2013	...work with senior executives and other company stakeholders to build out the ERM... <i>Sallie Mae (NASDAQ:SLM)</i> —Jeffrey Dale-2014
Monitor	...overseeing compliance, credit risk, operational risk and analytics functions... <i>Bank of America Corporation (NYSE:BAC)</i> —Geoffrey Greener-2014	...oversee Higher One's strategy and operational processes for all risk-related activities... <i>Higher One (NYSE:ONE)</i> —Mark Archer-2014	...oversee the bank's independent audit, compliance and loan review functions... <i>S&T Bancorp, Inc. (NASDAQ:STBA)</i> —Ernie Draganza-2012
Spokesman	...including risk culture and governance, modeling, and risk reporting... <i>Protective Life Corporation (NYSE:PL)</i> —Michael Temple-2013	...including relationships with key regulators and supervisory institutions... <i>Bank of America Corporation (NYSE:BAC)</i> —Geoffrey Greener-2014	...serve as a legal advisor for senior management and the board of directors... <i>Financial Institutions, Inc. (Nasdaq:FISI)</i> —William L. Kreienberg-2014
Entrepreneur	...as well as developing the methodologies and processes to measure... <i>Lincoln Financial Group (NYSE:LNC)</i> —John Rhodes-2012	...implementation of all strategic global risk management... <i>Aflac Incorporated (NYSE:AFL)</i> —J. Todd Daniels-2014	...developing and implementing an enterprise-wide risk management strategy and framework... <i>CIT Group Inc. (NYSE:CIT)</i> —Lisa K. Polsky-2010
Resource allocator	...will continue to provide support for strategic planning, corporate governance and merger and acquisition analysis... <i>NBT Bancorp (NASDAQ:NBTB)</i> —Shauna Hyle-2013	...continue to build the company's risk management capabilities, including integrating enterprise risk data... <i>BNY Mellon (NYSE:BK)</i> —James S. Wiener-2014	...continuation of innovative and effective solutions to measure, monitor and support... <i>Ameriana Bancorp (NASDAQ:ASBI)</i> —Janelle Gamble-2014
Disturbance handler	...business risks, operational risks and financial risks are appropriately monitored and controlled... <i>IFG Companies Christopher M. Lewis</i> -2014	...tasked with identifying and mitigating investment-related and other types of risks... <i>Salient Partners L.P.</i> —Ben Hunt-2013	

who reports to either of the aforementioned executive officers has a seat at the TMT table, and by acting as a peer, the CRO helps other senior managers comprehend the intricacies and the contribution of ERM to the overall organizational strategy. With a better understanding of what ERM contributes to the organizational strategy, top management can allocate the relevant resources to maximize the value of the ERM initiatives. Some of the phrases depicting the CRO's leadership roles in the press releases were "...will also provide leadership in the Bank's enterprise-wide risk management program... or ...lead the development and implementation of all strategic global risk-management programs and policies..."

Liaison

As a liaison, a manager reaches out to other organizational entities that are either within or outside the normal vertical chain of command. For instance, project managers spend between 75 and 90% of their time communicating and building alliances with either subordinates, peers, or other entities outside their functional units (PMI 2013). The multi-faceted and pervasive nature of ERM requires a CRO, through liaison, to establish and maintain relationships with fellow functional unit heads such as Chief Financial Officers, Auditors, Chief Information Officers, and Chief Legal Officers as well as external stakeholders such as government regulators, customers, and business partners. Thus, as a liaison, a CRO is able to develop a powerful database of information and knowledgebase that may be useful in addressing ERM issues. The CRO should also maintain relationships with external professional organizations from where they can obtain information and knowledge on the latest developments in the field or the prevailing best business practices.

From the data, the liaison role was depicted as follows "...works closely with line management, actuarial, finance, legal, reinsurance and investments and deals with other key corporate governance and control functions..." The role of a liaison involves lateral and horizontal communications and according to Gentry et al. (2008), communicating information and ideas is an important management role. The results of this study are in line with the findings of Ward (2001) who reported that as a liaison, CRO acts as the bridge between the organization and the external entities on ERM issues with obligations to gather enriching information beneficial to the welfare of the organization. In this study, a significant number of CROs were affiliated with outside industry organizations and such information was illustrated as "...Fellow of the Casualty Actuarial Society and Member of the American Academy of Actuaries..." or "...an associate of the Society of Actuaries..." Such affiliations are a testament to the relationships and ties that the sampled CROs established with their colleagues and through these relationships and ties, the CROs get exposure to the latest developments in the ERM arena.

Based on the data and the description of the roles and responsibilities associated with a leader and a liaison, we can summarize the interpersonal roles and argue that a CRO is a leader. A leader uses non-coercive influence to guide, motivate, and coordinate the activities of group members towards the attainment of specific objectives (Drucker 2008). For the CRO the leadership role is multi-dimensional and entails maintaining the status quo through compliance programs while also

responding to the changes in the risky dynamic environment. Leadership entails the exercise of power to achieve organizational goals. CROs' power emanates from various sources such as legitimate power because of their organizational position, expert power from their knowledge and skills of risk management, and referent power due to their relationships and affiliations with the TMT members.

Informational role

For the CROs, the most salient informational roles are monitor (2) and spokesman (4). These roles entail the flow and exchange of information with other internal and external stakeholders as shown in Fig. 1.

Monitor

The changes in an organization's internal or external environment generate new types of risks or alter the nature of the pre-existing risks. Thus, to appreciate the nature and level of the risks, the CRO must proactively monitor the risks (Ward 2001) through environmental scanning. As a monitor, the CRO is obligated to scan the external environment (market, partners, or government agencies) and gather information on the latest developments that have a potential to impact the ERM initiatives. The CRO may use one or more sources and contacts to gather the information. Some of these sources or contacts are subordinates, network of personal contacts, professional affiliations, vendor contacts, and hearsay or gossip (Mintzberg 1990). The information gathered by the CROs may yield new insights that contribute to the implementation or re-orientation of the ERM strategy. Internally, the CRO monitors the internal business processes and through sharing of information with other functional unit heads such as the Chief Financial Officers, Auditors, Chief Information Officers, and Chief Legal Officers, CROs ensure that the firm's business processes are in compliance with the applicable industry, vendors, or government regulations and standards. The monitor role is also salient for the CIO (Stephens 1995). For instance, in one of the press releases, the monitoring role was exemplified by the following statement "...will also oversee the bank's independent audit, compliance and loan review functions....." as well as "...her primary responsibilities include identifying, assessing and monitoring risks to the company's various lines of business...".

Spokesman

The role of a spokesman entails the CRO establishing contacts with other entities either within the organizational functional units or outside the organization. Due to the various types of risks facing organizations, the CRO will be required from time to time to cross intra- and inter-organizational boundaries and get involved in the operations and business processes of other units in what Rockart (1982) called "keeping in touch" with top executives and key users. Mintzberg (1990) argued that as a spokesman, a manager routinely communicates with entities outside their functional business units. The information communicated may be meant to inform

or satisfy the influential people who control the organizational resources. Some of the entities that the CRO may communicate with are consumer groups, shareholders, top executives, organizational risk committees, and government agencies. As a spokesman, the CRO communicates the organization's risk appetite and risk management philosophy within and across the organizational boundaries. The role of a spokesman has also been associated with a CIO (Carter et al. 2011; Yang 2008).

From the press releases, the spokesman role was prominent and was articulated by statements such as "...proactively manage and advise on potential portfolio risks to best ensure investment objectives are achieved in a disciplined..." As a spokesman, the CRO relays information to the external stakeholders about the firm's ERM strategy as well as information on how the firm is complying with the industry and government regulations. These interactions are legitimized by the risk management expertise of the CRO. The role of the disseminator (6) was not very prominent and had only 38 mentions in the press releases and this may be attributed to the overlap with other roles in the informational group. For instance, as a spokesman, the CRO shares information (disseminates) with the internal and external stakeholders.

In all, the CRO interacts with other entities within the organization and creates partnerships to make sure that the business processes are in compliance with the applicable regulations and industry standards. CROs play a significant role in ensuring that the firm meets the compliance requirements (Mikes 2010). They achieve this by utilizing their expertise to enable regulatory compliance and as spokesman to report and champion risk management endeavors within and outside the organization. By acting as the monitor or spokesman, the CRO is considered an enabler of the risk management initiative in the organization. The enabler role requires a CRO to think, not only like a risk management expert, but also have a good appreciation of how a business operates.

Decisional roles

Two main roles emerged as the most important to a CRO in the decisional role category, namely entrepreneur (3) and resource allocator (5).

Entrepreneur

As an entrepreneur, a manager can transform a functional unit through operational improvements that make the unit adaptable to a dynamic environment. The CRO manages the ERM strategy and constantly scans the environment for new threats, legislation, or best business practices. CROs are in charge of ERM programs which in many occasions necessitates changes in the organizational business processes which is a concept articulated in the Mintzberg's entrepreneur managerial role model. The CRO may initiate projects to implement ERM initiatives (Ward 2001) and may also choose to either supervise or delegate the continuous implementation phase. Some of these projects will involve new business processes, services, or products aimed at meeting industry regulations, government legislation, customers' experiences, enhancing shareholders' value, or improving cash flows. Overall, the

projects and initiatives should yield an integrative ERM initiative that helps the organization control and mitigate risks as well as build shareholder value through the exploitation of positive risks. Adizes (2004) identified entrepreneur as one of the main roles of a manager while Gottschalk (2002) specifically reported that one of the most important roles of a CIO is that of an entrepreneur. A number of press releases articulated the entrepreneur roles through statements like, "...will be responsible for developing and overseeing IFG's risk management policies to ensure that IFG's insurance business risks..." as well as "...responsible for expanding the company's already comprehensive financial and business risk management practices to establish a more integrated..." Due to the inevitable changes brought about by the entrepreneurial nature of some of the ERM initiatives, the CRO must act as a disturbance handler/negotiator, as shown in Fig. 1, and re-assure other entities who might be resisting the change(s).

Resource allocator

ERM programs involve the allocation of resources that are used in developing and implementing the various initiatives that address issues such the identification, monitoring, and active management of portfolio risks as well as analytics functions. These initiatives make use of organizational resources and for the most part, the CRO decides on how organizational resources allocated to the ERM initiative will be distributed, shared, and how work will be divided and coordinated. As the leader of the ERM unit, the CRO will be required to justify how organizational resources devoted to risk management are creating business value. As such, the CRO should be capable of articulating, in non-technical business terms, to the TMT, how ERM creates business value as well as the risk/reward tradeoff associated with various investment decisions. As a resource allocator, the CRO sets objectives, organizes the work into manageable activities, and assigns resources in line with what Drucker (2008) refers to as functions of a manager. Other top executives that have been associated with the resource allocator role include the CIO (Stephens 1995). From the data, the resource allocator role was exemplified by such statements as "...she will continue to provide support for strategic planning, corporate governance and merger and acquisition analysis..."

The roles of a disturbance handler (34) and negotiator (20) were not emphasized and received fewer mentions when compared with the other roles in the decisional group namely entrepreneur (98) and resource allocator (90). Disturbance handler addresses issues that arise as a result of changes in the business processes while a negotiator engages with internal and external stakeholders in order to reach consensus on various ERM initiatives. There might be overlaps in these roles because in order to handle disturbances amicably, one should possess good negotiation skills.

Risk management has emerged as an important component in many firm's business strategic processes. The decisional roles of an entrepreneur and a resource allocator imply that a CRO is a strategist. As a strategist, the CRO serves as the bridge between the ERM function and other organizational units in setting up strategic opportunities that both mitigate and exploit the risks in the environment (Ward 2001). The strategist role is synonymous with what Quinn et al. (2006) called

innovator and Hart and Quinn (1993) called vision setter. ERM is an important component of the organization and a CRO, as a strategic controller (Mikes 2010), should ensure the alignment of the ERM strategy with the overall organizational strategy so as to achieve competitive advantage or accrue the positive benefits associated with successful ERM implementations.

Conclusions

CROs are in charge of the ERM strategy and spend a significant amount of their time building and maintaining relationships with subordinates, peers, and outside entities as leaders and liaisons. They use their expertise and serve as spokespersons in risk management and also analyze the business environment in their role as monitors for information that might impact risk management. Through their roles as entrepreneurs and resource allocators, CROs also play a significant role in the overall organizational strategy by planning, initiating, coordinating, and managing risk management change control projects and programs. Thus, the roles and responsibilities of the CROs can be encapsulated into three core aspects namely a *leader* (leader, liaison), a *strategist* (entrepreneur, resource allocator), and an *enabler* (spokesman, monitor).

On the face value, there might appear to be general similarities with other “C-level” positions such as CIOs, CPOs, or CDOs based on the Mintzberg’s typology. Table 7 includes a summary of the managerial roles and responsibilities based on the Mintzberg’s framework and also shows how the results of the prior studies are related to the current study. For instance, the CRO and the CIO should be leaders and entrepreneurs and drive strategic thinking through innovation/entrepreneurship

Table 7 Managerial roles based on Mintzberg’s framework

Authors	Focus of Study	Key roles and responsibilities
Grover et al. (1993)	Chief Information Officers	Entrepreneur is the most important role followed by leader, spokesman, monitor, and resource allocator
Gottschalk (2002)	Chief Information Officers	Entrepreneur is the most important role followed by spokesman, leader, and liaison
Karlsen et al (2002)	IT executives IT project managers	Spokesman role is the most important Leader is the most important role followed by resource allocator and spokesman
Kayworth et al. (2005)	Chief Privacy Officers	Monitor, disseminator, spokesperson, figurehead, liaison, disturbance handler, negotiator, entrepreneur in no particular order
Horlacher and Hess (2016)	Chief Digital Officers	Entrepreneurs, spokesperson, and leader are the most important roles
This study	Chief Risk Officers	Leader, liaison, monitor, spokesman, entrepreneur, and resource allocator in order of importance

and change management. However, the CRO should also exemplify the role of an enabler and have a different set of technical skills useful in risk management, regulations, and compliance. The CROs do not own the risks but through the monitoring and liaison roles, they have oversight over the entire risk management framework and can influence and persuade others to control and mitigate the risks.

Thus, a CRO should be well rounded. For instance, to be an effective leader, a strategist, and an enabler, the CRO should be analytical and have a thorough understanding of the various aspects of business. Also, the CRO should be capable of articulating, in non-technical business terms, to the CEOs or Board, how ERM creates business value as well as the risk/reward tradeoff associated with various ERM investment decisions. To manage and nurture these relationships, the CRO should be a good negotiator, should have good people and communications skills (interpersonal skills) which are useful when interacting with the various stakeholders. The roles and responsibilities of the CROs signify that having analytical skills is not sufficient but a CRO should also have leadership, strategic, and communication skills in order to be a value generating business partner and not just an assurance enforcer. Thus, the role of a CRO is not singular but is a tapestry of interwoven facets which are essential for a successful ERM strategy.

Implications for research and practice

This study is among the few that have explored the various aspects of the roles and responsibilities of the CROs. A major contribution of this research to the risk management literature is re-opening and extending the debate on the role and responsibilities of the CROs. Another contribution of this research is the identification of key roles and responsibilities of the CRO namely leadership, liaison, monitor, spokesman, entrepreneur, and resource allocator which are encapsulated under leader, strategist, and enabler. The roles of a CRO (a *leader*, a *strategist*, and an *enabler*) are associated with higher-level leadership positions. Thus, theoretically, it would be prudent to investigate the salient leadership traits/styles that would make CROs more effective.

A number of leadership theories have been used to define what aspects make leaders stand out. Some of these theories include the trait theory, contingency theories, transactional, and transformational theories. Contingency theories articulate the absence of a single superior overarching leadership paradigm but argue that leadership style is contingent on a number of internal and external organizational factors (Fiedler 1964). Thus, due to the multifaceted and embedded nature of organizational risk that calls for the involvement of various entities requiring negotiation, collaboration, and buy-in, a democratic leadership style would be feasible in lieu of a more autocratic leadership style which calls for strong, quick, and decisive decision-making processes (Lewin et al. 1939). Also, as a *leader*, a *strategist*, and an *enabler*, the CRO would be required to be a team leader, motivate employees, and collaborate with other members of the TMT in what is encapsulated in a transformational leadership style (Burns 1978). Specifically, a strategist is a transformational leader whose roles and responsibilities differ from those of a

transactional leader who is mandated with “keeping the lights on” or attending to the day-to-day business chores.

Additionally, an understanding of the most important roles for the CROs will facilitate the training and development of the new/next generation of CROs by developing career development programs or curriculums focused on traits and skills required to fulfill the identified roles and responsibilities. More research studies should be devoted to this line of work especially given the role that ERM and CROs are playing in the organizational strategy and business value creation. The current study offers several implications to managers. To start with, if organizations are to accrue the benefits associated with the presence of a CRO, it is important to determine the roles and responsibilities of these CROs because such an understanding facilitates the coordination of work, communicates expectations, and enables training, benchmarking, and career development. Also, as firms continue to implement ERM strategies and hire CROs to manage these initiatives, it is important to have an understanding of what roles are important so that the CROs can concentrate on the most important roles and responsibilities. The association of the CROs with the leadership, strategist, and enabler roles and responsibilities implies that CROs are value-creating business partners and should be treated as such.

Limitations and future studies

The use of the announcements information to determine the roles and responsibilities of the CROs may not provide a level of detail that could be obtained from case studies and may limit the generalizability of the findings. However, the fact that the information was contained in the announcements and came from key informants implies that it is important and that the roles and responsibilities contained therein are also the most important ones. Although most of the firms are in the finance, insurance, and real estate industries, firms in other industries share many of the same risky management challenges which can be addressed by implementing an ERM strategy and their CROs would be charged with roles and responsibilities that mirror the ones identified herein.

On the other hand, Mintzberg’s model was developed a number of years ago and the world of work might have changed due to the development in technology leading to the globalization of work environments, corporate restructuring, and downsizing implying that skills that were applicable in the 1990s might not be relevant today. However, there are many studies that have adopted Mintzberg’s managerial roles model in various academic disciplines and the results have confirmed the applicability of the model across many functional areas and hierarchical levels. Also, over time, other studies have noted significant similarities with the Mintzberg’s original study (Gentry et al. 2008; Tengblad 2006) and have reported that managerial skills that were important in the 1980s are still relevant in today’s business environment.

The results from this study, although preliminary, are insightful and should further the debate on the roles and responsibilities of the CROs. However, future

studies should be pursued to provide data triangulation and facilitate a deeper insight and understanding of the roles and responsibilities of the CROs and can entail interviews or surveys with a number of CROs to gain additional information on the CROs' daily work routines and chores, their main challenges, as well as the requisite skill sets. There is also a need to extend this line of inquiry using other classic managerial role models such as Adizes (2004), Hart and Quinn (1993), and Quinn et al. (2006). The use of other managerial roles models will reinforce the reported roles in this study or uncover other role configurations for the CROs and ultimately contribute to a better appreciation of the roles and responsibilities of the CROs.

Appendix: Sample announcements

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Global Banking News

June 3, 2014 Tuesday

-Central Pacific Financial names EVP & chief risk officer

LENGTH: 201 words

Global Banking News - 03 June 2014

Central Pacific Financial Corp (NYSE: CPF), the parent company of Hawaii-based Central Pacific Bank (CPB) has named Raymond W. 'Bill' Wilson to executive vice president and chief risk officer for both CPF and CPB.

In his new position, Wilson will be responsible for overseeing the newly consolidated risk management areas of the bank, including Credit Administration, Retail Credit, Legal, Compliance, BSA, Information Security, Fraud Mitigation, and Internal Audit.

Wilson has served as the bank's executive vice president and chief credit officer since joining CPB in 2010. He led the special assets and risk management teams for the bank and assisted with the bank's capital raising efforts. Before joining CPB, Wilson had 15 years of US and international experience in credit risk management in public and private companies, as well as 14 years of credit and lending management experience at a major international financial institution.

Wilson is a board member of Easter Seals Hawaii (Chair 2014-2015), Hawaii State Chapter of the American National Red Cross, and Pacific Links Hawaii Foundation.

[Editorial queries for this story should be sent to gbn@enpublishing.co.uk]

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12 of 1203 DOCUMENTS

Business Wire

April 23, 2013 Tuesday 3:51 PM GMT

Virginia Commerce Bank Announces Key Appointments of Chief Risk Officer and Chief Security Officer

LENGTH: 445 words

DATELINE: ARLINGTON, Va.

In keeping with Virginia Commerce Bank's commitment to professional development and in recognition of increased responsibilities and outstanding performance, we proudly announce the following key promotions:

Christopher J. Ewing was **promoted to Chief Risk Officer**. This new title is in addition to Mr. Ewing's current responsibilities as Executive Vice President, Chief Operations Officer. Mr. Ewing joined VCB's Executive Management team in 2011 and has over 28 years of experience in the banking industry, specializing in strategic planning and project management. He has played a pivotal role in taking the Bank's operations and technology systems to a higher level of sophistication, and his expanded executive oversight will sustain the Bank's strong risk management practices.

Wendy M. Dunham was **promoted to Chief Security Officer**. Ms. Dunham has been with the Bank since 2003 and has over 25 years of experience in operations, training, security and fraud prevention. She currently oversees bank security, information security, loss prevention and, in her new role, will also manage the Bank's Facilities Department. She is an active participant on several corporate committees, including Enterprise Risk Management, Audit and Technology. Ms. Dunham is also active with the Virginia Bankers Association (VBA), currently serving in a leadership capacity as Chair of the Security Committee and is also a member of the VBA's Enterprise Risk Management Committee.

"The Board of Directors and Executive Management are delighted to recognize the outstanding performance and significant responsibilities of these two individuals," commented Peter Converse, President and CEO of Virginia Commerce Bank. "Chris and Wendy have both played an important role in the development and execution of VCB's prudent risk management practices. They will continue to drive the initiatives that enhance our approach to handling total institutional risk and ensure that the daily operations of our Company and value of our stockholders' investment are safeguarded."

About Virginia Commerce Bank

Established in 1988, Virginia Commerce Bank (NASDAQ:VCBI) is a full-service, community bank headquartered in Arlington, Virginia, with over \$2.8 billion in assets. The Bank serves the Northern Virginia and Fredericksburg markets with twenty-eight branches, a mortgage lending office and a wealth management services department. For further information about VCB's many services and a map of convenient locations, please visit our Web site at VCBonline.com.

CONTACT: Virginia Commerce Bank, Tricia Ostrander, EVP & Chief Administrative Officer, 703-633-6120, postrander@vcbonline.com, <http://www.vcbonline.com>, URL: <http://www.businesswire.com>, LOAD-DATE: April 24, 2013, LANGUAGE: ENGLISH, DISTRIBUTION: Business Editors, PUBLICATION-TYPE: Newswire, Copyright 2013 Business Wire, Inc.,

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