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Evolving Crisis Management - Current Jobs and Required Employee's Skills and Characteristics Analysis

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Abstract

With digitalization transforming the industries, as well as crisis management field, most managers are asking the following questions. What do organizations consider under today's crisis management? Which knowledge, technological capabilities, education and competences do organizations require from their employees in the crisis management field? Considering that fairly large number of organizations do not have adequate crisis management systems in place, and accordingly organizations are not sufficiently prepared for crisis situations, it is necessary to further develop crisis preparedness and response capacities, whereas clear understanding of new methods and crisis management activities can contribute to adequate response to organizational crises. This paper will determine what constitutes the modern crisis management, new job market demands, and further streams of research. Accordingly, the aim of this paper is to identify modern crisis management jobs, organizational needs for jobs, employee's assignments, scope of activities, along with instruments and methods. Analysis was accomplished through qualitative content research of online job ads (vacancies) on online platform LinkedIn, and it identified a mix of skills and characteristics needed for jobs in the crisis management field. In addition, this paper provides an overview and mapping of the contemporary crisis management field (which concepts can be classified under the crisis management field, identifies similarities and differences among the concepts), provides guidelines and basis for further theoretical and empirical research and development of the crisis management field. The contribution of this paper is in identification of guidelines for further research, especially from the aspect of current organizational needs and identifying demand for crisis management employees. The findings can help managers and human resource teams further develop the knowledge on crisis management and crisis management expert's requirements.

Keywords: Crisis management, Job content analysis, Job requirements, LinkedIn, Organizations

Track: Management

Word count: 12.609

1. Introduction

In an era of digitalization and complexity, organizational crisis management and relating activities are of significant importance to managers (Corporate Excellence, 2013). There is a constant need for further development of crisis management and response to challenges of evolving business, technological and social environment (Baubion, 2013). Social media, social practices, technological changes, and smart ICT devices (smartphones, tablets, smart

watches, etc.) are considered simultaneously as both a challenge and an opportunity for crisis management development (Stern, 2017).

Stated developments challenge and significantly affect the traditional organizational crisis management phases of preparedness, response, recovery and feedback (World Bank Group, 2016). In order for contemporary crisis management to be efficient it is necessary to properly understand it, define it and state the actual tasks and assignments, as well as comprehend the development tendencies. Advances in digitalization reduce available time for response to crises. In a multilateral exchange of information through interconnected modes of communication such as social media, instant response to challenges in real time is needed. For instance, shift in modes and approaches in crisis communication are evident from once controlled dissemination of information towards a currently dominant multi directional means of communication via social media (Eriksson, 2012).

Furthermore, in today's economy, employees, i.e. human capital presents a vital organizational asset and driver for attaining sustainable competitive advantage (Becker, 2002). OECD defines human capital as "The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being" (OECD, 2001: 18). It is considered a good practice of firms to significantly invest in human capital, their training and growth, as means to have competent and content employees which significantly contribute to firm's success (Siddique, 2004: 227). Accordingly, it is necessary to redefine the roles, assignments, scope of activities, instruments and determine the appropriate contemporary crisis management methods. Job ads help provide the necessary data (Kennan, et al., 2006). Hence, for the purpose of exploring and remodeling the role of crisis management and its interconnected tasks, a primary research was conducted through a content analysis of job demand for employees from crisis management domain through an online platform LinkedIn, serving as a good indicator of employers requirements, with an aim of identifying organizational needs for employees and determining desired sets of specific activities, skills, competencies, knowledge and experience. LinkedIn is both a social networking and job posting platform (Gee, 2016; Lenaerts, Beblavy, Fabo, 2016) significant in today's job search and job matching due to its ease of use and a representative number of employers present- where labor market demand and supply meet. Such stream of research aims to define modern "crisis manager" and what one should possess in order to adequately deal with challenges of turbulent environment.

It is often difficult to pinpoint, even for informed practitioners and academics, where crisis management currently is and in which direction it is advancing. Hence, the aim of this research is to evaluate required demand for crisis management competencies, which consequently enable overview and initial mapping of the crisis management field (which concepts can be categorized under the crisis management, identify the similarities and differences among the concepts), whereas an answer to what organizations consider under today's crisis management, which knowledge, technological capabilities, education and competencies employers demand from their employees dealing with crisis management tasks is determined. Through researching the crisis management profession, the intention of the analysis was to identify inadequately explored areas, evaluate new trends in the practice and new market demands for crisis management, provide more clarity into required crisis management skills and competencies, as well as paths for further development of the field. This research expects to describe the activities of crisis management in its current business context. A list of required knowledge and competencies (e.g. from a technological change

perspective) will be updated, and enable initial overview of the field, as well as provide guidelines for further research of the crisis management field.

The structure of the paper is as follows. After the introduction, section 2 evaluates the field of crisis management and related terms. Section 3 deals with significance of crisis management. Section 4 discusses the job content analysis method and its importance. Section 5 discusses the methods of research and process. Section 6 is analysis section. In part 7 limitations are stated and potential research possibilities, while last part 8 is conclusion section.

2. Positioning of crisis management

Crisis management is a concept and term used in various fields, such as medicine, sociology, psychology, engineering, logistics, political science and communication (Sellnow, Seeger, 2013: 2).

In English language literature there are various terms associated with crisis management: preparedness, prevention, business continuity management, issue management, disaster management, etc. The challenge is not so in proper definition of terms crisis and crisis management, rather in a proper and adequate use of crisis management concepts, both in theory and in practice (Jaques, 2007: 148). Knowledge and possibilities of defining crises characteristics allow a succinct distinction of crisis management from similar terms in literature in order to adequately explore the constructs and relations among the constructs (Kovoor-Misra, Clair, Bettenhausen, 2001: 78). Crisis management and crisis management related activities should be in line with general business strategy. Crisis management presents a significant strategic management function in a sense that it connects numerous activities such as risk management, managing security and safety, environmental scanning, contingency plans, emergency response, etc. in one encompassing activity (Shaw, 2004: 20).

Moreso, business continuity management is a term closely related with crisis management (Parnell, Koseoglu, Spillan 2010: 108). Business continuity refers to a short and long term existence of a firm (Lockwood, 2005: 3). Primary goal of business continuity is to enable business continuation irrespective of various crises and challenges and enable organization to return to a previous initial business path prior to crisis (Light, 2008: 20).

Even though crisis management and contingency management have the same purpose to recover organization from crisis and are complementary activities, crisis management as observed from the perspective of operative set of activities is a broader concept than the business continuity management and includes phases such as crisis preparedness, crisis response, crisis recovery, while business continuity mainly deals with crisis recovery phase. The two stated concepts can be seen as complementary.

Without crisis management and business continuity, activities such as crisis preparedness, crisis identification, crisis response and recovery are impeded. Short of the stated activities and measures, in times of crises, managers are prone to respond instinctively and are likely to make more mistakes, as opposed to in advance prepared strategic responses to crises situations (Sapriel, 2010: 30). The problem is in that a significant number of firms do not spend enough resources for the stated activities, which can result in inadequate responses when necessary. Even though the mentioned activities, as well as other associated concepts demand time, resources and activities before, during and after the crises, the results of the

stated conducted activities can significantly lower inputs and costs, as opposed to a potential damages and harm which crises can incur (PWC, 2009: 9).

Table 1: Overview of crisis management term and concepts related with crisis management
<i>Crisis management (CM)</i>
Crisis management developed from the preparedness for emergency situations, and consists of four interrelated main activities: prevention, preparedness, response and revision with an aim of preventing crises emergence and reducing damage caused by crises event (Coombs, 2012: 5).
Crisis management consists of joint employee's activities, together with stakeholders to effectively avoid crises or manage the ones that do happen (Pearson, Clair, 1998: 61).
Crisis management is evolutionary and complex process, which consists of activities based on organizational structure, culture and politics (Carmeli, Schaubroeck, 2008: 180).
Crisis management constitutes a part of a good corporate practice (Lockwood, 2005: 3).
Crisis management is important for overcoming threats and minimizing the role of crises on organizations (Sapriel, 2003: 349).
Crisis management considers adequate response to crises and has a significant role in determining firm's success from failure (Spillan, Hough, 2003: 400).
Crisis management assumes that a crisis can be managed before, during and after the crisis event (Parnell, Koseoglu, Spillan, 2010: 111).
Crisis management is a continuous process which consists of three phases: pre crisis phase, crisis phase and post crisis phase (Coombs, 2012: 1-2).
Crisis management is a significant strategic factor of organizational success (Light, 2008: 57).
Crisis management can be viewed as a set of activities which intend to predict or identify potential business crises, improve prevention measures, or minimize the crises consequences (Preble, 1997: 777).
<i>Business continuity management (BCM)</i>
BCM contributes to clearer insight into organization, structure and stakeholder groups through encouraging development of environmental scanning culture, identification and reporting on risks, which consequently contributes to other planning activities and strategy development (PWC, 2009: 5-9).
BCM provides strategic and operative framework for redesign of products and services while simultaneously increasing the resilience for discontinuities. BCM's primary goal is to ensure the business continuation in various circumstances through development of strategies aimed at improving resilience, recovery, and return to "business as usual" mode after the crisis (Shaw, 2004: 21).
Business continuity among other things needs to include plans for swift business recovery, plans of alternative business locations in case of emergency, and provide answers to challenges facing employees in times of crisis. BCM allows organizations to return to initial business path prior to crisis (Light, 2008: 20).
<i>Issue Management</i>
Managing organizational problems which mainly relate to dealing with significant internal or external challenges (Jaques, 2007: 147).
Issue or a trend, which if left unattended can escalate and have significant negative impact on the organizations activities (Coombs, 2012: 4).
Difference between a crisis and issue is in that problems are recurring situations which

Table 1: Overview of crisis management term and concepts related with crisis management negatively impact firms, while crises are often rare and unusual event (James, Wooten, Dushek, 2011: 462).
<i>Contingency plans</i>
Are sort of "B plans" for emergency, unexpected situations caused by crises, which provide guidelines and procedures for quick recovery from crisis to "normal" business (Light, 2008: 20).
Contingency plans should be integrated in and in line with strategic and economic business goals, which if properly implemented, allow sustainable competitive advantage (Shaw, 2004: 26).
<i>Emergency response/ emergency management</i>
Emergency response means short term organizational response with an aim of initial stabilization of consequences caused by crisis. The adequate speed of response to a certain situation can be seen as an important element of crisis response within the crisis management (Jaques, 2007: 156).
<i>Organizational resilience</i>
Organizational resilience refers to preparedness for challenging situations, whereas organizations swiftly and efficiently adjust and learn in face of difficulty and change (Vogus, Sutcliffe, 2007: 3418-3419).

Source: author's

Mitroff (2005: 105) differentiates systematic process of crisis management as an umbrella term in relation to other similar terms and supporting disciplines, claiming that crisis management is not risk management, business continuity planning or crisis communication, even though the stated concepts are important, they are merely a part of entire crisis management process. Hence, in this paper, crisis management includes various principles, which constitute specific part of a wider context of managing crises situations.

It is necessary to note that crises management constructs and similar concepts do not necessarily need to diverge. Instead, they can be observed as mutually connected activities (Jaques, 2007: 147). The purpose of all listed activities is to through mutual coordination strengthen the organizational resilience, preparedness, response to crises, and crises recovery.

3. Significance of crisis management

According to Roux-Dufort (2009: 4) crises are results of inadequate organizational culture, as well as managerial unpreparedness, which enables the organizational weaknesses to expand and subsequently develop into crises.

One of the major reasons crises occur are due to inadequately prepared managers, which are inexperienced in preparing for and handling crises. Previous crises experience, as well as education and training, significantly contribute to improvements in organizational crises preparedness. Organizational crises preparedness begins with a perception of top management on taking risks (Rousaki, Alcott, 2007: 28). Furthermore, crisis resilience and organizational crisis preparedness can be successful only if managers at every organizational level support crisis management in all phases, and especially in crisis response phase (Sapriel, 2010: 29). In essence, the role of crisis manager is of a key importance in creating

organizational crisis preparedness, that is in cases of absence of planning and inadequate preparedness crises managers can further escalate the problems.

According to the information provided by FEMA (2011), based on previously conducted research, only 29% of firms in U.S. enable partial or complete training for their employees in business continuity, which indicates a high general level of crises unpreparedness. In accordance with the mentioned, organizations are capable of learning from previous mistakes and avoid the same or similar situations in future through recognizing and correcting the conditions which have led to mistakes at the first place (Rousaki, Alcott, 2007: 30). Previous findings on crises have found that many firms were inadequately prepared for crises and by inappropriately handling of crises have even made the situation worse.

The consequences of crises unpreparedness according to Kahn, Barton and Fellow (2013) can stir negative emotions within certain stakeholder groups, which can blame the firm for the crises, and on the other hand can contribute to a sense of guilt in persons responsible for mistakes in judgment. More so, crises situations can instill a sense of hopelessness in employees during crises times, because sometimes they cannot provide adequate response and properly manage the crises. Therefore, managers should construct the organizational systems which would ensure better crises preparedness (Carmeli, Schaubroeck, 2008: 189) and enable firms to adequately assess the potential damages and needed counter measures in order to prevent the escalation of crises. Crisis management is therefore inefficient if the discipline is considered as negative and unproductive in terms of creating value, as a waste of time and as operative instead of a strategic activity (Robert, Lajtha, 2002: 185).

Effective crisis management term is important to understand and distinguish in order for firms to know which options they have available when dealing with crises. Effective crisis management considers avoiding potential crises, reduces duration and effects of crisis (Pearson, Clair, 1998: 61). Effective crisis management is a continuous improvement process, due to volatile, unexpected events which require adjustments in organizational plans (Mitroff, Shrivastava, Udvardi, 1987: 285; Brown, 2002: 21). The crucial point is in a notion that by acting proactively, organizations have better chances of preventing or properly handling crises.

Even though it can be considered that crises cannot be prevented as they often occur spontaneously, that is not entirely right, since the majority of crises are preceded by certain warning signs. For instance, large layoffs are almost always preceded by poor financial results. Recall of products is almost always a result of previous customer's complaints, etc. However, it does still not imply that the organizations would be able to spot and prevent all types of crises if we were to know the crises causes. In a significant number of cases, the inability to communicate in a crisis leads to crises escalation (Parnell, Koseoglu, Spillan, 2010: 111). Considering the complexities of today's crises, successful communication is crucial for overcoming crises problems (Sellnow, Seeger, 2013: 14). Clarity and precision is needed in crises communication. In the firms, the culture of openness and communication is especially important in times of crises (Jaques, 2011: 10). The advantages of effective crises management are reflected in better reputation, improved organizational culture, employee's cooperation and creativity.

4. Job analysis

With the development of the field, dynamic changing environment and advances in technology, it is often necessary to analyze and redefine the job requirements and methods needed for conducting the job. Therefore, job analysis allows for matching of most capable employees with employer's needs, and increasing their retention.

“Job analysis is the procedure firms use to determine the tasks, duties, and responsibilities of each job, and the human attributes (in terms of knowledge, skills, and abilities) required to perform it. Once this information has been gathered, it is used for developing job descriptions (what the job entails) and job specifications (what the human requirements are)” (Dessler, Chhinzer, Cole, 2015 :49). “It includes having the skills and techniques to assess the needs and requirements of enterprises as well as the needs and capacities of job seekers” (Heron, 2005: 3). “It is a systematic process in that it follows a step-by-step approach to collect, record, analyse and interpret the information collected” (Heron, 2005: 7).

A number of authors are of belief that job analysis can be of strategic importance for HR practice, especially evident through proper workforce planning and ability to make better decisions (Siddique, 2004: 219). The purpose is in matching employees skills and capabilities with in job ad stated requirements. When jobs are in line with firm's strategy and needs, employee's knowledge and skills can have a positive effect on productivity, overall performance, competitive position, innovativeness, quality and service (Tharenou, Saks, Moore, 2007: 251-252).

Analysis of online job ads is useful in identifying skill sets used in demand for certain groups of jobs. The job description and job specification information as a result of job analysis should be used to decide what sort of person to hire (Dessler, Chhinzer, Cole, 2015 :50). Job analysis information is deemed valuable, strategic and basic HR activity, which affects “HR activities of recruitment and selection strategies, training and development, performance appraisal, compensation, and health and safety requirements” (Siddique, 2004: 220).

„For enterprises, job analysis has many general uses including:

- supporting general recruitment and selection processes;
- supporting the job matching process;
- appraising staff performance;
- assisting in staff promotion exercises;
- identifying training needs“ (Heron, 2005: 17).

In addition to already stated, job analysis serves as job evaluation tool, for managing labour relations, and helps in job design (Dessler, Chhinzer, Cole, 2015 :49)

Second aspect of defining jobs and its requirements relates to attracting competitive employees. Properly defined job roles and specifications/expectations can have several advantages on employees' motivation, matching of employees' expectations and subsequently increased productivity (Siddique, 2004: 223).

5. Methodology

Job content analysis method was used in order to obtain valuable information about job, needed skills and employees characteristic for successfully performing job. The aim was to provide insights into crisis management assignments, as well as preferred employees characteristics and specific job responsibilities in the field of crisis management. Researching online job ads (vacancies)- helps identify mix of skills needed for jobs in the crisis management field.

Based upon the literature and terms reviewed, the crisis management related jobs were searched for on LinkedIn. Qualitative, cross sectional and convenience sample job analysis was conducted on LinkedIn on a date March 18, 2017., using initial classification keyword: crisis management.

Out of a total of 13178 jobs (12521 jobs from USA, and 657 jobs from UK) that matched in LinkedIn search criteria for keyword “crisis management”, we have selected in our primary sample 250 job ads, on a basis of being the first 150 job ads that appeared by relevance criteria in USA part of sample, as well as 100 first job ads that appeared by relevance criteria in UK part of sample. We have selected geographically job ads based in US and UK due to the developed practices in crisis management, which could provide latest trends on crisis management, as well as due to the large enough available sample for analysis. Out of initial sample of 250 firms which have contained the keyword “crisis management”, 51 job ads were excluded, because even though in their description they have contained the keyword “crisis management”, they were not jobs from the business crisis management domain, and for instance referred to medical staff jobs, pharmaceutical jobs, hygiene testers, health and environment, social workers, psychiatrists, job safety and private security firms. Therefore, at this stage sample consisted of 199 firms. In order to gain better insight into most represented specific crisis management jobs, we have analyzed the use of the frequent concepts in crisis management, by using the following keywords: crisis management; preparedness; readiness; crisis prevention; business continuity management; issue management; disaster management; risk/threat management; contingency plans; emergency response; emergency management; business continuity management; resilience; crisis communication; business recovery; safety management.

Through conducted analysis and insight on obtained data through frequencies of ads, we have identified 4 major categories/ streams: crisis management; crisis communication; risk management; business continuity and resilience. In addition, some job ads were excluded on a basis of incomplete information as well as misspecification. Final sample consisted of 127 job ads (comprising of job ads matching descriptions for- crisis management 36 job ads, crisis communication 47 job ads, business continuity and resilience 26 job ads, and risk management 18 job ads).

From the final sample we have accordingly analyzed the following categories: employee assignments, scope of activities, technology, instruments and methods used, knowledge and education, skills and competences, experience.

6. Analysis

The following section analyzed job ads from the final sample classified under 4 major categories: crisis management, crisis communication, risk management, business continuity and resilience. The subsequent job ad categories were analyzed: specified job certificates required; specified skills required; specified years of experience required; required degree; job titles, descriptions and skills; as well as propositions of optimal job description for each of the 4 major keywords and its most offered job.

6.1. Crisis management

Table 2: Certificates specified in job ads for “crisis management”	
CERTIFICATE	FREQUENCY
CPR/1st Aid	1
driver's license	2
Project Management Professional (PMP) certification	2
Certified Emergency Manager (CEM by the International Association of Emergency Managers – IAEM).	1
ISO 27001	1
HITRUST certifications	1
Security certifications preferred (CISSP, CISA, CISM, etc.)	1
CPP, CPA, CIRA, CTP, CFA, CDB	1
NEBOSH certificate	1
MCSE / MCP / MCITP certification	1
ITIL Foundation certification	2
PRINCE 2 Certification	1
CCNA (Cisco Certified Network Associate)	1
JNCIA (Juniper Networks Certified Internetworking Associate) certification	1
DRI Certification (ABCP, CFCP, CBCP)	2
IS100HC, IC200HC, IS 700 and IS 800	1

Source: author's

Table 3: Skills specified in job ads for “crisis management”		
SKILLS	FREQUENCY	PERCENTAGE
Interpersonal skills	26	83,87%
Mentor, leadership and monitoring skills	9	29,03%
Organizational and planning skills	5	16,13%
Social media	0	0,00%
Knowledge of regulations	0	0,00%

Writing skills	14	45,16%
Verbal communication and presentation skills	25	80,65%
Editing and design skills	0	0,00%
Communication tools	0	0,00%
Technical/computer skills	17	54,84%
Project/program management skills	6	19,35%
Research, problem solving and analytical skills	15	48,39%
Crisis management skills/experience	11	35,48%
Sum	31	100,00%

Note 1: Tehnical/computer skills: MS Office

Note 2: Interpersonal skills: Ability to react quickly

Source: author's

Table 4: Specified years of experience required in job ads for "crisis management"

YEARS OF EXPERIENCE	FREQUENCY	PERCENTAGE
1	1	2,78%
2	2	5,56%
3	4	11,11%
4	1	2,78%
5	3	8,33%
6	0	0,00%
7	1	2,78%
8	1	2,78%
9	0	0,00%
10	2	5,56%
10+	2	5,56%
Not specified	7	19,44%
Described*	12	33,33%
Sum	36	100,00%

Note 1: Described*- explained with words in which future employee must have work experience; does not contain years (e. g. experience in IT operations activities)

Note 2: The table lists the minimum number of years of work experience (e. g. looking for 5+ years, placed under 5 years)

Source: author's

Table 5: Degree required in job ads for "crisis management"

DEGREE	FREQUENCY	PERCENTAGE
Bachelor's	19	52,78%
Master's	3	8,33%
Not relevant	1	2,78%
Not specified	13	36,11%
Sum	36	100,00%

Source: author's

Table 6: Grouped job titles, descriptions and skills in job ads for "crisis management"

JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS	Frequency	Percentage
Crisis Manager	Be the lead for crisis management. Provide leadership and direction for all members of the departmental staff. Be a key member of the Crisis Management Support Team.	Leadership skills, interpersonal skills written and	6	16,67%

Table 6: Grouped job titles, descriptions and skills in job ads for “crisis management”

	Create project and Crisis plans. Deliver the departmental business plan and KPI's. Build strong relationships. Build and implement long-term strategy for Crisis Management.	verbal communication skills, computer skills project management skills, crisis management skills, analytical skills, organizational and planning skills.		
Director Of Youth Services	Supervise, support, and train direct service staff, plan programs and review tracking of goals and objectives. Oversee the submission of participation data. Be the lead for crisis management when needed.	No information	1	2,78%
Implementation Manager	You will scope out customer engagements, implement the solution and ensure our customers get the most value from our service.	Interpersonal skills, leadership skills, computer skills (HTTP, HTTPS, SSL, IIS, TCP, Radius, Firewall, proxy,...), communication skills, crisis management skills	1	2,78%
Office Operations Manager	Responsible for the direction and oversight of the department. Review expenditures of all departmental staff. Manage a departmental budget. Key member of the Incident Response/Crisis Management Support Team. Helps identify potential/immediate impacts.	Interpersonal skills, writing and communication skills. IT skills.	2	5,56%
Manager- Security Operations	Providing 24x7 security services Responsible for upholding F5's business code of ethics. Interviewing/hiring new staff. Identify and implement operational efficiencies and/or implement service improvements Develop and implement processes for tracking key operational metrics	Interpersonal skills, written and verbal communication skills, organizational, leadership, analytical skills, good understanding of IT.	1	2,78%
IT Manager	Directs the daily operation and delivery of IT systems.	Interpersonal skills, analytical	5	13,89%

Table 6: Grouped job titles, descriptions and skills in job ads for “crisis management”

	Strategy, roadmap and budgeting. Lead crisis management. As a key member of the IT leadership team Identify and achieve improvements.	ability, project management skills, IT skills, interpersonal and problem resolution skills.		
Project Manager	Manage the full lifecycle and scope of the project Identify, escalate, and work with the project team to resolve issues Create project plans, including estimating work required Identify risks Manage project costs	Project management skills, communication and interpersonal skills, crisis management skills and technically strong skills.	1	2,78%
Mobile Crisis Team Supervisor	Assist And Supervise Mobile Crisis Management Employees providing crisis response developing a Crisis Plan monitoring or coordination of movement across levels of care Work cooperatively with all other staff	No information	1	2,78%
Senior Security Intelligence and Response Engineer	will tackle unsolved problems around incident response in the cloud help mature our crisis management and incident response capabilities Developing and executing cross functional tabletops and game days Identifying and closing capability gaps with partner engineering teams	Crisis mangement experience, Computer and Networking Fundamentals, Scripting or basic coding.	1	2,78%
Regional Account Manager - Corporate Travel	Provide leadership to account team Responsible for the regional coordination of all communication across region Develop Business Plan implement key deliverables, measure results Manage new business implementations Establish and maintain relationships	Communication skills-oral, written and presentation, ability to travel.	1	2,78%
ALLIANCE MANAGEMENT ASSOCIATE DIRECTOR	Work with partner company(s) Crisis management – address hot topic issues that require immediate attention Perform regular alliance audits and “health checks Lead and/or participate in contract renegotiations Look for opportunities to create increased value	Interpersonal skills, leadership skills, analytical skills, communication and writing skills, proficiency in MS Word, Excel and PowerPoint.	1	2,78%
Global Security Director	development, implementation, and management of BioMarin’s global	Analytical skills,	1	2,78%

Table 6: Grouped job titles, descriptions and skills in job ads for “crisis management”

	corporate security strategy Establish and manage the new global corporate security function Assist in managing the corporate security budget Develop and maintain effective relationships with internal stakeholders	leadership experience, communication and presentation skills, interpersonal skills.		
Director - Restructuring & Turnaround (New York, Boston, Houston, Dallas, Los Angeles)	deliver objective advice in complex situations involving among other areas: restructuring and turnaround (in and out of bankruptcy) Lead multiple engagements and deliver value to customers, Generate sales leads, and manage client relationships. Mentor/developer of Analyst, Associate, and Manager talent	Interpersonal skills, crisis management skills, ability to lead, analysing skills.	1	2,78%
LDN – Rates – Application Support Analyst	Design, develop and implement a broad range of operational support services -incident & problem management Develop key metrics which will define 'great service' Build close partnerships As a key member of the IT leadership team	Interpersonal and communication skills.	1	2,78%
HSE Manager	preparing, implementing, maintaining and continually improving (Q)EHS management system documentation, procedures and instruction liaising with insurers with regards to employers liability claims and providing risk assessment and crisis management support	Analytical and interpersonal skills, communication skills.	1	2,78%
Interim QA Manager	implement compliance and improve the company quality system and support operational teams in delivering agreed quality procedures Systems to include HACCP, crisis management and other You will provide technical support to address consumer and customer complaints	No information	1	2,78%
Senior Head of Learning Services	Ensure customer expectations are met and/or exceeded - KPIs, SLAs and Customer Satisfaction survey results Support the sales team design and delivery of the Operational strategy Ownership of Managed Learning Services ISO, Business Continuity and Crisis Management	Interpersonal skills, verbal communication skills, analytical skills	1	2,78%
Business Systems Manager	Evaluate and review the Enterprise Resource Planning (ERP) system functionalities and ensure that the	IT skills (Microsoft technologies	1	2,78%

Table 6: Grouped job titles, descriptions and skills in job ads for “crisis management”

	business's operational system requirements are being achieved by the supplier. Plan and coordinate the ERP version upgrade process Develop and maintain a business ICT ""crisis management"" document	and IT infrastructure planning and development), understanding of e-Business		
Security Manager	To lead and motivate the operational teams to deliver the departmental business plan and KPI's Act as a member of Crisis Management Team To demonstrate a professional and competent approach to the management of the airport safety management system	Communication, leadership and interpersonal skills.	1	2,78%
Major Incident Manager - Enterprise Command Center	advising and consulting with other IT teams on processes relating to Incident Management, Problem Management and Change Management. work with IT teams to improve the overall stability assist in driving educational, training and communication programs	Organizational skills, interpersonal, troubleshooting skills, crisis management and communication skills, IT skills.	1	2,78%
Operations Manager	will be responsible for the operational requirements of the Financial Risks Divisions (PI, FI, D&O, Crisis Management and Political Risks) as well as liaising with numerous other departments within the business including Compliance, Technical Operations and Credit Control	No information	1	2,78%
Facilities Manager	Preparation, control and monitoring of the service charge budget prepare management reports To be responsible for all health and safety compliance To proactively manage risk and deal with insurance compliance Ensure a Crisis Management plan is in place	Interpersonal skills and communication skills.	1	2,78%
Aero Operations Manager	ensure that there is the appropriate operational support lead crisis management and be responsible for the appropriate internal and external communication, post mortal crisis analysis and damage control responsible of maintaining and organising operational review meeting	Interpersonal skills, understanding of digital communications networks, PC skills, communication and analytical skills	1	2,78%
Senior Unified Security Support Engineer	Provide leadership during firewall and VPN problem determination efforts Provide planning and vendor oversight for firewall and VPN	IT skills (LAN switching and router technologies,	1	2,78%

Table 6: Grouped job titles, descriptions and skills in job ads for “crisis management”

	changes Drive process improvements and procedures that will improve overall Security Service Delivery to the customer Provide periodic performance reports	wireless technology, VoIP technology,...), crisis management, interpersonal, communication and writing skills.		
Corporate - Global Security & Investigations - EMEA Alarm Monitoring Centre Manager - Associate	Ensure compliance with health and safety risk assessments Ensure reports for incidents/Alarm Responses are compiled Strategy development and setting aims/objectives of the department Development, introduction and maintenance of departmental policies Build strong relationships	Communication (written and oral), organizational skills, IT skills, Interpersonal skills.	1	2,78%
Legal, Litigation and Regulatory Proceedings, Analyst/Associate, London	Process and risk assess all new matters and monitor the development of existing matters Help design, implement and monitor policies, procedures and systems in order to minimize organizational risk and for crisis management	No information	1	2,78%
SUM			36	100,00%

Source: author's

Table 7: Proposition of optimal job description for the “crisis management” keyword and its most offered job

KEYWORD	JOB DESCRIPTION	SKILLS	MAIN INDUSTRY
Crisis manager	Be the lead for crisis management.	Interpersonal skills, Mentor, leadership and monitoring skills, Organizational and planning skills, Writing skills, Verbal communication and presentation skills, Technical/computer skills, Project/program management skills, Research, problem solving and analytical skills, Crisis management skills/experience.	Consulting
	Be a key member of the Crisis Management Support Team.		
	Develop and implement processes for tracking key operational metrics.		
	Create project plans.		
	Identify risks.		
	Develop a Crisis Plan.		
	To lead and motivate the operational teams.		
	Help design, implement and monitor policies, procedures and systems in order to minimize organizational risk for crisis management.		

Source: author's

From the analysis of job ads classified under term “crisis management” the following summary follows: four most wanted job skills in frequency of appearance are interpersonal skills (84%), verbal communication skills (81%), technical/computer skills (55%), research, problem solving and analytical skills (48%). Most frequent desirable minimum years of experience is 4 years, however most of ads have described expected experience or do not have specified work experience. Master's degree was required in 8% of job ads. Most of jobs require Bachelor's degree. Only 16,67% of all job ads with key word "crisis management"

have word "crisis" in job title. Jobs with keywords "crisis management" are mainly related to industries such as banking, consulting, recruitment and networking.

6.2. Crisis communication

Table 8: Certificates specified in job ads for "crisis communication"	
CERTIFICATE	FREQUENCY
ICS-300	1
ICS-400	1
HSEEP Exercise Design	1
MCSE certification	1
ITIL Foundation certification	1
PRINCE 2 Certification	1

Source: author's

Table 9: Skills specified in job ads for "crisis communication"		
SKILLS	FREQUENCY	PERCENTAGE
Interpersonal skills	34	82,93%
Mentor, leadership and monitoring skills	13	31,71%
Organizational and planning skills	20	48,78%
Social media	16	39,02%
Knowledge of regulations	2	4,88%
Writing skills	29	70,73%
Verbal communication and presentation skills	31	75,61%
Editing and design skills	5	12,20%
Communication tools	6	14,63%
Technical/computer skills	11	26,83%
Project/program management skills	9	21,95%
Research, problem solving and analytical skills	12	29,27%
Crisis management skills/experience	8	19,51%
Sum	41	100,00%

Note 1: 41 job ads contained stated skills

Note 2: Interpersonal skills listed: self-confidence, flexibility, integrity, honesty, passionate, proactive, self-motivated, ability to build new relationship, work under pressure, high attention to detail, willing to learn, ability to prioritize, think critically, strategic thinker, high emotional IQ, team player, persuasion skills, multi-tasking abilities, adapts to changing situations, forward thinking, open-minded, strong point of view, ability to self-review, work under pressure, consumer focus, negotiation skills, confident, high personal accountability, ability to work independently

Note 3: Social media skills listed: Instagram, Snap, Reddit, MSDN, blogs, forums, Facebook, Twitter, YouTube and Google+

Note 4: Communication tools: tools such as Brandwatch and Sprinklr, SharePoint or other web-based communication tools, KeyNote, iMovie

Note 5: Technical/computer skills: Microsoft Office and project management software, SproutSocial or similar social media management software, SaaS vendors such as Box, Google Apps, NetSuite, Salesforce, ServiceNow and Workday,

Note 6: Editing tools: PhotoShop, Canva, Illustrator

Source: author's

Table 10: Specified years of experience required in job ads for "crisis communication"		
YEARS OF EXPERIENCE	FREQUENCY	PERCENTAGE
1	2	4,26%
2	2	4,26%
3	2	4,26%
4	1	2,13%
5	5	10,64%

6	0	0,00%
7	3	6,38%
8	3	6,38%
9	0	0,00%
10	5	10,64%
10+	2	4,26%
Not specified	9	19,15%
Described*	13	27,66%
Sum	47	100,00%

Note 1: Described*- explained with words in which field future employee must have work experience; do not contain years (e. g. experience in IT operations activities)

Note 2: The table lists the minimum number of years of work experience (e. g. looking for 5+ years, placed under 5 years)

Source: author's

Table 11: Degree required in job ads for “crisis communication”		
DEGREE	FREQUENCY	PERCENTAGE
Bachelor's	18	38,30%
Master's	0	0,00%
Not relevant	3	6,38%
Not specified	26	55,32%
Sum	47	100,00%

Source: author's

Table 12: Grouped job titles, descriptions and skills in job ads for “crisis communication”				
JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS	Frequency	Percentage
Industries "Manager, Emergency Preparedness & Response "	Plan to ensure effective, efficient response and communications between the Locations and Corporate. Develop and implement a strategy for improvement in the Emergency Response system. Support HR in the implementation emergency humanitarian assistance plans.	Interpersonal skills (self-confidence, flexibility, honesty, integrity...), organizational and planning skills, leading skills, knowledge of regulations, writing, computer and verbal communication skills.	1	2,13%
Public Affairs Manager	Provide public affairs and communications leadership. Develop communications plan for crises. Establish strong relationships. Analyzes and reports back on results of PR campaigns. Researching and defining relevant Key Performance Indicators. Lead product and brand communications strategy.	Writing and verbal communication skills, knowledge of regulations, editing and video production skills, experience with social media, interpersonal skills, planning and organizational skills, crisis management and project	23	48,94%

Table 12: Grouped job titles, descriptions and skills in job ads for “crisis communication”

		management skills, leadership skills.		
Social Media Relations & Analytics Manager	Delivery and support of the Marketing team’s social media strategy and plans. Assisting with social media crisis management. Create and develop a new digital media practice. Work as a mentor for team. Manage digital communities and social media campaigns.	Project management and crisis management skills, interpersonal skills, written and verbal communication skills. Organizational skills, computer skills, leadership skills. Editing and analytical skills.	5	10,64%
Media Relations Specialist	Triage all customer communications through social channels and determine appropriate communication plan and customer resolution path. Assist in crisis management. Conduct periodic customer health-checks. Build effective relationships at all level	Writing and verbal communication skills, Interpersonal skills, Social media, organizational skills, research and analytical skills. Crisis management experience, Computer skills and experience. Leadership skills.	5	10,64%
Site Performance Owner - Facilities Maintenance	Lead, manage and supervise all aspects of MERIT services. Develop client relationship. Identify and selling landscape enhancements. Crisis management, including rapid and reliable response to service challenges. Work with account management team.	No description	1	2,13%
Account Executive - Event Accommodation	Consult clients in effective housing management. Analyze performance of event’s hotel block pick-up and registration numbers against history and event budget. Develop project management timelines. Create event revenue projections, budgets and periodic re-forecasting.	Interpersonal skills (self-motivated, positive attitude, detail oriented,...), technical skills (MS Office), Crisis management and resolution skills, verbal and written communication and presentation skills, project management skills,	1	2,13%

Table 12: Grouped job titles, descriptions and skills in job ads for “crisis communication”

		organizational and analytical skills.		
Marketing Manager	Defining processes and developing training and communication materials for corporate/regional crisis management situations. Identify, support and execute strategic marketing initiatives and campaigns. Create specific marketing and PR strategies.	Analytical, organizational, interpersonal, writing and verbal communication skills. Computer skills (MS Office). Social media experience, program management skills, crisis management, leadership skills, reporting skills.	4	8,51%
DRC Security Manager	Ensure communication systems are adequate and maintained and is in place to instantly respond to a crisis management situation. Update and maintain security plans. Publish, implement and promote the approved documents. Ensure contingency plans. Research and analyze security-related information.	Knowledge of risk management, Fluent in written and spoken French and English, writing and analytical skills, interpersonal skills	1	2,13%
Press Officer	Developing media plans. Spotting tactical media opportunities. Building excellent relationships. Develop effective, innovative PR campaigns. Advising clients on media management and strategies. Inputting into crisis management scenarios.	Interpersonal skills, writing skills.	3	6,38%
Senior Manager, Global Vaccines Medical External Communications	Responsible for planning, development and delivery of strategic external communications. Oversee communications agency involvement in the development and execution of relevant communications plans and materials, including effective budget management.	Interpersonal skills (creative thinking, ability to develop strong relationship,...), crisis management skills, verbal and written skills, organizational skills, experience with social media and problem solving skills	1	2,13%
GBR - Internal Communications Specialist	Support the internal communications. Work closely with the Risk & Compliance team to ensure their messages are aligned and meaningfully delivered. Provide internal communications support for the Firm's ongoing Business Continuity Planning effort.	Writing and verbal communication skills, interpersonal skills (self-starter, motivated,	1	2,13%

Table 12: Grouped job titles, descriptions and skills in job ads for “crisis communication”

		proactive, team player...), organizational skills.		
Account Supervisor, Corporate Communications & Crisis Management	Lead integrated campaigns Independently manage the creation of press materials Moderate media interviews Take a leadership role in new business proposal development Manage, provides mentorship, and delegate to junior staff	Oral and written communication skills, experience with social media, mentorship aptitude, IT skills.	1	2,13%
Sum			47	100,00%

Source: author's

Table 13: Proposition of optimal job description for the “crisis communication” keyword and its most offered job

KEYWORD	JOB DESCRIPTION	SKILLS	MAIN INDUSTRY
Crisis communication expert	Plan to ensure effective, efficient response and communications.	Interpersonal skills, Mentor, leadership and monitoring skills, Organizational and planning skills, Social media, Knowledge of regulations, Writing skills, Verbal communication and presentation skills, Editing and design skills, Communication tools, Technical/computer skills, Project/program management skills, Research, problem solving and analytical skills, Crisis management skills/experience	PR/Marketing/Public affair agencies
	Develop and implement a strategy for improvement in the Emergency Response system.		
	Develop communications plan for crises. Establish strong relationships.		
	Researching and defining relevant Key Performance Indicators.		
	Lead product and brand communications strategy.		
	Create and develop a new digital media practice.		
	Manage digital communities and social media campaigns.		
	Assist in crisis management.		
	Consult clients.		
	Create event revenue projections, budgets and periodic re-forecasting.		
	Create specific marketing and PR strategies.		
	Spotting tactical media opportunities.		

Source: author's

From the analysis of job ads classified under term “crisis communication” the following summary follows: four most wanted job skills in frequency of appearance are interpersonal skills (83%), communication skills- verbal (76%), written (71%) and organizational and planning skills (48%). In addition, 81% of job ads contain interpersonal skills as the skills required for a particular job. Most frequent desirable minimum years of experience are 5 and 10 years depending on the seniority of position and industry, but most of ads have described or do not have specified work experience. In a sample, there is no job which require Master's degree. Most jobs do not have a desired degree specification. 48,94% of job ads with word "crisis communication" refers to job title "public affairs manager". Jobs with keywords "crisis communication" are mainly related to companies such as PR/Marketing/Public affair agencies, law firms, telecommunications companies, companies engaged in manufacturing and distributing products.

6.3. Business continuity and resilience

Table 14: Certificates specified in job ads for “business continuity and resilience”	
CERTIFICATE	FREQUENCY
Project Management Professional (PMP)	1
DRII (ABCP, CBCP, MBCP)	8
BCI	2
PCI	1
ISO	1
Sarbanes-Oxley	1
Business Continuity Planner Certification	1
Industry certification (e.g., ICS/NIMS, CEM and/or related EM/Homeland Security advanced in-person training)	1
Microsoft’s Dynamics AX	1
ERP solutions such as SAP, Oracle, PeopleSoft, JD Edwards or BAAN	1
CISSP	1
IR	1
APT	1
Microsoft security and identity technologies	1
Azure PaaS	1
Microsoft security and identity technologies	1
Business Continuity accreditation from a recognized industry body	1
National Incident Management System Incident Command System (NIMS/ICS) ICS-300 and ICS-400	1
National Response Framework	1
Board certification as a Physical Security Professional or Certified Protection Professional (Security Management) through ASIS International is an advantage	1
Board certification as a Certified Fraud Examiner through the Association of Certified Fraud Examiners is a plus	1
CBCI	1
ISO22301	1
BCI	1
BCS	1
CISA	1
Homeland Security Exercise and Evaluation Program (HSEEP) G-120 and G-130	1
C#	1
Compliance Courses: IS100HC, IC200HC, IS 700 and IS 800	1
SUM	36

Note 1: 36 certification data from 26 job descriptions.

Note: some descriptions of abbreviations: ABCP - Associate Business Continuity Professional; CBCP - Certified Business Continuity Professional; BCI - Business Continuity Institute; Advanced Persistent Threat (APT); Microsoft security and identity technologies - Active Directory, ADFS, VPN, PKI, DirectAccess, WAP, RMS, SCEP and IPsec.; C# (XAML /HTML are useful); ISD, SDM and leveraging tools such as TFS to manage the Application Lifecycle Management; Microsoft security and identity technologies - Active Directory, ADFS, VPN, PKI, DirectAccess, WAP, RMS, SCEP and IPsec.

Source: author’s

Table 15: Skills specified in job ads for “business continuity and resilience”		
SKILLS	FREQUENCY	PERCENTAGE
Interpersonal skills	17	22,37%
Mentor, leadership and monitoring skills	7	9,21%
Organizational and planning skills	3	3,95%
Social media	0	0,00%
Knowledge of regulations	2	2,63%
Writing skills	9	11,84%
Verbal communication and presentation skills	14	18,42%

Editing and design skills	0	0,00%
Communication tools	0	0,00%
Technical/computer skills	12	15,79%
Project/program management skills	2	2,63%
Research, problem solving and analytical skills	8	10,53%
Crisis management skills/experience	2	2,63%
SUM	76	100,00%

Note: out of 26 job ads, 22 job ads contained skills descriptions

Note 1: Technical/computer skills: MS Visio, Word, Excel, Visio, SharePoint, Project, and PowerPoint, RSA Archer, MS Access, MS Suite

Note 2: Interpersonal skills: Ability to effectively communicate with stakeholders to execute emergency and security measures to their maximum potential and achieve buy-in of emergency and security practices; must be able to build strong relationships in a complex business environment and be self-motivated and work effectively as an individual contributor; patience and ability to prioritize, self-starting individual with the ability to work independently and take ownership of issues; to work under the pressure of deadlines; demonstrate the ability to be a superior problem solver; ability to question the status quo, identify improvements and effectively drive change; ability to navigate in a highly complex organization and operate effectively in changing environment; ability to grasp new concepts quickly; ability to handle sensitive and confidential issues in a fast-paced environment.

Source: author's

Table 16: Specified years of experience required in job ads for “business continuity and resilience”

YEARS OF EXPERIENCE	FREQUENCY	PERCENTAGE
1	0	0,00%
2	2	7,69%
3	4	15,38%
4	0	0,00%
5	4	15,38%
6	1	3,85%
7	2	7,69%
8	0	0,00%
9	0	0,00%
10	1	3,85%
10+	0	0,00%
Not specified	4	15,38%
Described	8	30,77%
Sum	26	100,00%

Note 1: Described*- explained with words in which field future employee must have work experience; do not contain years (e. g. experience in IT operations activities)

Note 2: The table lists the minimum number of years of work experience (e. g. looking for 5+ years, placed under 5 years)

Source: author's

Unlike the keyword "risk", this analysis provides information that number of years is a relatively important feature when posting a job ad. On the other hand, "risk" requires more descriptive years of experience (through skills, competencies etc.) and it is 50%.

Table 17: Degree required in job ads for “business continuity and resilience”

DEGREE	FREQUENCY	PERCENTAGE
Bachelor's	16	61,54%
Master's	1	3,85%
Not relevant	4	15,38%
Not specified	5	19,23%
SUM	26	100,00%

Source: author's

Table 18: Grouped job titles, descriptions and skills in job ads for “business continuity and resilience”				
JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS	Frequency	Percentage
Business Continuity Analyst	To support the client's overarching business continuity program, to update the crisis management program continuously, to develop materials, meet with stakeholders, and collect data to support routine self-assessments, to perform monitoring and reporting	Writing skills, in particular planning and report writing skills, oral and presentation skills (verbal negotiating); interpersonal skills (ability to establish and grow strong relationships, ability to manage multiple tasks successfully and efficiently in a fast paced, regulatory driven environment); research, problem solving and analytical skills; ability to lead others and team projects (e.g. prioritizes work, provides effective training, and coordinates multiple tasks) and organizational skills.	11	42,31%
Business Resiliency	Assists in multiple and/or more complex continuity planning and testing objectives with cross-functional impact. To identify and remediate control issues. Sought to help company's clients develop their capability to anticipate, prevent, respond, and recover from disruptive incidents.	Strong analytical and problem solving abilities; mentor, leadership and monitoring skills (coaching and mentoring to deliver solutions of mutual benefit to clients and consultants); interpersonal skills (ability to work in a high pressure environment, ability to interact with all levels of the organization); verbal communication and writing skills.	5	19,23%
IT Disaster Recovery Specialist	To facilitate and coordinate the development of IT's disaster recovery plan and organizational business continuity plans. You will assist with management of the IT disaster recovery exercises and provide test results documentation. You will also assist with the maintenance of Business Continuity Plans including structured walkthroughs and table top exercise with the business.	Research, problem solving and analytical skills (ability to create KPI's, dashboards, metrics and reporting), technical/computer skills (ability to work on Information Technology sponsored projects).	1	3,85%
Senior Business Analyst	To play a key role in Resiliency program, establish trusted relationships with business stakeholders, build strong relationships and processes with partner teams, ensure coordination with teams and provide global coverage for Enterprise Resiliency services.	Interpersonal skills (capable of working collaboratively in a challenging, dynamic and global environment, strong track record in developing, implementing and refining Enterprise Resiliency processes); skilled at preparing risk readouts and reporting at all levels of the company.	1	3,85%
Manager - Emergency Management	To recommend solutions to overcome gaps to assure the preparedness, continuity, and recovery of personnel and facilities. Deliverables will include products and services designed to directly influence emergency preparedness planning, associated training and the delivery and implementation of disaster readiness plans and exercises.	Superior organization, technical writing and overarching communication skills; interpersonal skills (ability to operate and work within a complex, networked organization requiring high levels of self-direction, autonomy and diplomacy, demonstrated ability to manage third-party vendor contracts).	1	3,85%

Table 18: Grouped job titles, descriptions and skills in job ads for “business continuity and resilience”				
	Reports to the Senior Director of Corporate Security.			
Senior AX Consultant	Helps identify, pursue and close strategic business development opportunities while continually driving existing projects. They also play a key role in employing, leveraging partners and off-shore teams as part of the overall Microsoft services delivery model.	Skill in both crisis management and expectation management (able to deliver effective strategic presentations to audiences of all sizes and possess excellent communication skills); interpersonal skills (ability to architect solutions by mapping customer business problems to reusable end-to-end business application solutions).	1	3,85%
Head of Risk	Design and take ownership of a single risk management process, ensure best practice risk management is embedded, review current risk identification processes, assist in developing an approach to risk quantification, develop a clear process of reporting risk.	Excellent communicator at all levels, both written and verbal.	1	3,85%
Cybersecurity Solutions Architect	To define appropriate customer solution, scope the effort and provide technical leadership in sales pursuits. Requires assisting customers in architecting, planning and applying governance for company Cybersecurity Solutions as appropriate.	Knowledge of regulations.	1	3,85%
Architect	To manage the complete lifecycle of large and complex projects, to maintain effective product group relationships, to assess feasibility of migrating customer solutions, to help translate business requirements into technology requirements.	Advanced analysis skills, ability to lead and motivate technical communities.	1	3,85%
Health & Environment Manager	Responsible for the management and provision of safety, health and environmental advice and guidance to the business in support of legislation, best practice, International and British Standards and company procedures. Participate in projects and working parties and carry out any other duties.	Technical/computer skills.	1	3,85%
Security and Safety Manager – EMEA	To act as program lead in the delivery of projects, to be the primary point of contact for business stakeholders and communication conduit in the area of security, life safety, and emergency preparedness and response.	Interpersonal skills (ability to thrive in a fast-paced environment that requires you to be proactive, self-sufficient, and manage your time effectively); demonstrated ability to lead others and team projects (e.g. prioritize work, provide effective training, and coordinate multiple tasks), demonstrated clear, concise, and effective communication skills.	1	3,85%
Business	Responsible for the ongoing	Project management skills.	1	3,85%

Table 18: Grouped job titles, descriptions and skills in job ads for “business continuity and resilience”				
Continuity Management Systems Analyst - University of Rochester	development, implementation, exercising and maintenance of the business continuity and disaster recovery plans; educates on business continuity plans to build resiliency in the end user population responsible for centralized crisis management coordination.			
SUM			26	100,00%

Source: author's

Table 19: Proposition of optimal job description for the “business continuity and resilience” keyword and its most offered job			
KEYWORD	JOB DESCRIPTION	SKILLS	MAIN INDUSTRY
Business Continuity Analyst	Provides guidance in identifying and defining critical systems and in assessing potential business impacts if they are interrupted, assist with the implementation of recovery solutions., coordinate development of business, report the business continuity status, provide expertise and support to management	Interpersonal skills (ability to work in a high pressure environment, must be able to build strong relationships in a complex business environment, to be self-motivated and work effectively as an individual contributor, patience and ability to prioritize, ability to manage multiple tasks successfully, ability to question the status quo); ability to lead others and team projects ((e.g. prioritizes work, provides effective training); excellent communicator at all levels, both written and verbal and a healthy desire for collaboration, using strong organizational skills.	IT industry
	To establish appropriate preparedness efforts to sustain and safeguard the corporation's brand and reputation.		
	To identify and remediate control issues, to work in partnership on the development of new, and oversight of existing, control functions and protocols, to undertake the full spectrum of resiliency management responsibilities and provide central oversight of the state of resiliency.		
	Assist with management of the IT disaster recovery exercises and provide test results documentation.		
	Overall technical direction and oversight in the development and execution of the Business Continuity Program for the company's global operations.		
	To ensure best practice risk management is embedded, review current risk identification processes, assist in developing an approach to risk quantification, develop a clear process of reporting risk.		

	To support the client's overarching business continuity program, to update the crisis management program continuously, to develop materials, meet with stakeholders, and collect data to support routine self-assessments, to perform monitoring and reporting		
	Helps identify, pursue and close strategic business development opportunities while continually driving existing projects.		
	To define appropriate customer solution, scope the effort and provide technical leadership in sales pursuits.		

Source: author's

This analysis provides information that number of years is a relatively important feature when posting a job ad. The most sought-after certificates for Business Continuity are DRI certificates, i.e. Disaster Recovery Institute certificates such as Associate Business Continuity Professional (ABCP), Certified Business Continuity Professional (CBCP), Master Business Continuity Professional (MBCP) etc. The most preferred business continuity skills are interpersonal skills with 22,37% such as the ability to work in a high pressure environment, ability to build strong relationships in a complex business environment, to be self-motivated and work effectively as an individual contributor, to have patience and ability to prioritize, ability to manage multiple tasks successfully, ability to question the status quo. Other most wanted skills are verbal communication and presentation skills with 18,42%, technical/computer skills with 15,79% and writing skills with 11,84%. There are 16 out of 26 job ads that require only Bachelor's degree which is exactly 61,54%, while Master's degree was required by only one company in a sample. The largest number of job ads are tied to the IT industry, which dominates job-related business continuity and resilience ads. The most offered job related to the keyword "business continuity" is Business Continuity Analyst.

6.4. Risk management

Table 20: Certificates specified in job ads for "risk management"	
CERTIFICATE	FREQUENCY
Certified Industrial Hygienist	1
Certified Safety Professional	1
Incident Command certification	1
HAZWOPER	1
CPR	1
First Aid certification	1
SBSP	1
MBCP	1
ABCI	1
MBCI	1
FBCI	1
ITIL	1
PMP	1
Certified Data Recovery Professional (CDRP)	1
CAMRA	1
Precision LM	1
D&D	1
CERM	1

Table 20: Certificates specified in job ads for “risk management”

CIA	1
CRM	1
RMP	1
COSO	1
ISO	1
NIST	1
Certified Safety Professional (CSP)	1
Aviation Security Managers Course certificate	1

Note: 26 certificate data from 18 job descriptions

Source: author’s

Table 21: Skills specified in job ads for “risk management”

SKILLS	FREQUENCY	PERCENTAGE
Interpersonal skills	12	21,82%
Mentor, leadership and monitoring skills	4	7,27%
Organizational and planning skills	3	5,45%
Social media	1	1,82%
Knowledge of regulations	1	1,82%
Writing skills	5	9,09%
Verbal communication and presentation skills	9	16,36%
Editing and design skills	0	0,00%
Communication tools	0	0,00%
Technical/computer skills	7	12,73%
Project/program management skills	2	3,64%
Research, problem solving and analytical skills	7	12,73%
Crisis management skills/experience	4	7,27%
SUM	55	100,00%

Note 1: 14 skills data from 18 job descriptions.

Note 2: Technical/computer skills: MS Visio, Word, Excel, Visio, SharePoint, Project, and PowerPoint, RSA Archer, MS Access, MS Suite

Note 3: Interpersonal skills: Ability to work independently and in teams where required; ability to build strong working relationships across the business and with external agencies; ability to adapt in a changing business environment and to embrace and implement change; ability to manage a heavy and varied work-load; self-discipline and excellent time management; ability to quickly develop, confidence in dealing with different levels of management and other stakeholders; strong negotiation and influencing skills; ability to react quickly and work accurately and methodically (with attention to detail) in a pressurized environment; excellent service delivery skills and exposure in shared service environment; ability to think creatively and solve problems with tight deadlines; ability to multi-task on several assignments at once; ability to remain cool, calm and collected in time of pressure; excellent focus on attention to detail.

Source: author’s

Table 22: Specified years of experience required in job ads for “risk management”

YEARS OF EXPERIENCE	FREQUENCY	PERCENTAGE
1	0	0,00%
2	0	0,00%
3	1	5,56%
4	0	0,00%
5	0	0,00%
6	0	0,00%
7	1	5,56%
8	1	5,56%
9	0	0,00%
10	2	11,11%
10+	1	5,56%
Not specified	3	16,67%

Described*	9	50,00%
Sum	18	100,00%

Note 1: Described*- explained with words in which field future employee must have work experience; do not contain years (e. g. experience in IT operations activities)

Note 2: The table lists the minimum number of years of work experience (e. g. looking for 5+ years, placed under 5 years)

Source: author's

Table 23: Degree required in job ads for "risk management"		
DEGREE	FREQUENCY	PERCENTAGE
Bachelor's	10	55,56%
Master's	0	0,00%
Not relevant	7	38,89%
Not specified	1	5,56%
Sum	18	100,00%

Source: author's

Table 24: Grouped job titles, descriptions and skills in job ads for "risk management"				
JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS	Frequency	Percentage
Senior Manager, Environmental Health & Safety	Responsible for evaluating, developing, planning, leading and executing environmental, health and safety programs and activities. Responsible for ensuring compliance, safety regulations and practices. Oversee Crisis Management plans and support Continuity and Risk activities. Provide leadership for the organization.	Interpersonal skills (personal and organizational sensitivity, vision, inspiration, innovation, talent building, decisive, strong communication, collaborating and influencing skills, be a strategic thinker, be willing to challenge the status quo), mentor, leadership and monitoring skills (lead teams, and be part of a team, lead culture change efforts).	2	11,11%
Cyber Technical Resilience Manager	Assess, design, and implement resilient architectures for clients. Help complex organizations more confidently pursue their growth, innovation and performance agendas through proactive management of the associated cyber risks. Advise in transforming DR solutions to secure environments.	none	1	5,56%
Risk Management Specialist	Provide support to internal customers, responsible for strategic analysis of the Company's insurance programs, safety and security policies, developing and leading strategic initiatives, directing, evaluating, assessing and identifying risks company-wide and determining the most appropriate risk transfer and financing programs and mitigation strategies.	Strong communication; presentation and analytical skills; strong leadership skills; strong interpersonal skills (strong understanding of Worker's Compensation, General Liability, Property and other risk/safety/security programs required, understanding of financial aspects of risk management including actuarial analysis, allocation of risk programs, claim trend analysis and management reporting required).	3	16,67%

Table 24: Grouped job titles, descriptions and skills in job ads for “risk management”

Investment Accounting Software Manager	Consistently provide accurate, cost-effective and reliable implementations of SS&C's CAMRA and Precision LM products, including investment accounting platforms for both SS&C outsourcing clients and licensed clients, providing information and support to clients, work closely with internal stakeholders to ensure implementations are best-in-class.	Interpersonal skills in cooperation with crisis-management knowledge (ability to work under high pressure to meet deliverables in a fast paced environment using crisis-management skills, ability to multi-task and prioritize to accomplish workload efficiently under minimal supervision); verbal communication and writing skills (demonstrated, proactive and responsive communication skills both verbal and written).	1	5,56%
Risk Manager	Lead the production of aggregated reporting information for Senior Management, write & commentate on global portfolio credit risk positions, effective monitoring and reporting on various internal risk limits/caps and regulatory limits. Support the team in managing crisis situations (client or country-specific). Analyze financial statements and strategies.	Research, problem solving and analytical skills, technical/computer skills (experience using MS Excel & Access); interpersonal skills (partnership and team work, self-discipline and excellent time management, ability to react quickly and work accurately and methodically in a pressurized environment, confidence in dealing with different levels of management and other stakeholders, strong negotiation and influencing skills); excellent communication, verbal and leadership skills; strong relationship and presentation skills.	3	16,67%
Senior Security Specialist	To support global operations by employing risk mitigation strategies and promoting the principle of a shared responsibility for security and safety. Responsible for coordinating operational security services across the region.	Excellent interpersonal skills.	1	5,56%
Volunteer Trustees (PR, Media, Marketing and/or Branding experience)	Focused on developing and overseeing the organization's Communications Strategy, assisting with the development and implementation of the communications strategy, including refining key audiences and messaging. To ensure that the charity is run properly, responsibly and lawfully in the interests of its members in accordance with its constitution; To respond efficiently and properly to all donors and beneficiaries; to report accurately and at least annually to the members of the	none	1	5,56%

Table 24: Grouped job titles, descriptions and skills in job ads for “risk management”

	charity.			
Employee Communications Business Partner	Build strong relationships with stakeholders, define stakeholders' communications requirements and provide them with strategic advice and counsel, develop and deliver leadership communication approaches, develop channel approaches and plans, ensure that all activities and duties are carried out in full compliance with regulatory requirements.	Excellent strategy creation and planning skills (including channel strategy and audience segmentation); strong leadership skills, understanding and managing relevant risk (governance, compliance and control issues); excellent writing skills.	1	5,56%
Delivery Specialist	To supervise and manage the delivery of all the day-to-day activities across all Resilience areas and manage the team of delivery specialists who deliver and execute the activities/requests; respect, co-operate and work in harmony with others in pursuit of team goals/objectives; ensure that all activities and duties are carried out in full compliance with regulatory requirements.	Interpersonal skills; good influencing and negotiation skills; strong analytical skills (able to analyze performance, forecast trends and develop strategy around service improvements); excellent verbal and written communication capabilities.	1	5,56%
Senior Internal Audit Manager	Be accountable for the design and delivery of the audit plan for the Group. To take active leadership of business continuity, specifically providing strategic direction to the crisis management teams and the individual plan owners. To undertake ad-hoc projects and involvement in business led initiatives as appropriate.	Demonstrate excellent interpersonal skills (ability to quickly build rapport and relationships with line managers).	1	5,56%
Compliance Manager - Part Time	To effectively identify, assess and manage enterprise risk, to ensure appropriate reporting on, and escalating of, key risk matters across the Group, to develop and maintain appropriate internal know-how and expertise together with continual improvement and benchmarking, to lead and be responsible for managing and overseeing.	Interpersonal skills (ability to manage a heavy and varied work-load, ability to adapt in a changing business environment and to embrace and implement change); strong presentation and communication skills.	1	5,56%
Aviation Security Manager	Responsible for managing the airline's operational security functions and ensuring all security risks are identified and managed, where appropriate, in compliance with national and international regulation and legislation for the airline, to lead the business in identifying, assessing, and responding to new and emerging security risks.	Written communication skills; presentation skills; organization skills (ability to deliver to set deadlines); interpersonal skills (ability to build strong working relationships across the business and with external agencies, ability to work independently and in teams where required, highly motivated and able to work under own initiative).	1	5,56%
Account Executive, SaaS	Develop and nurture relationships, strategically navigate and influence all	Communication skills; written communication	1	5,56%

Table 24: Grouped job titles, descriptions and skills in job ads for “risk management”

Risk/Crisis Management	stakeholders in the buying process, ensure a regular and productive feedback loop.	skills; interpersonal skills.		
		SUM	18	100,00%

Source: author's

Table 24: Proposition of optimal job description for the “risk management” keyword and its most offered job

KEYWORD	JOB DESCRIPTION	SKILLS	MAIN INDUSTRY
Risk Manager	To support global operations by employing risk mitigation strategies and promoting the principle of a shared responsibility for security and safety.	Interpersonal skills in cooperation with crisis-management knowledge (ability to work under high pressure to meet deliverables in a fast paced environment using crisis-management skills, ability to multi-task and prioritize to accomplish workload efficiently under minimal supervision, partnership and team work, self-discipline and excellent time management, ability to react quickly and work accurately and methodically in a pressurized environment, confidence in dealing with different levels of management and other stakeholders, strong negotiation and influencing skills); excellent communication, verbal and leadership skills; strong relationship and presentation skills); mentor, leadership and monitoring skills (lead teams, and be part of a team, lead culture change efforts); analytical skills (able to analyze performance, forecast trends and develop strategy around service improvements); organization skills (ability to deliver to set deadlines).	Financial services
	To effectively identify, assess and manage enterprise risk, to ensure appropriate reporting on, and escalating of, key risk matters across the Group, to develop and maintain appropriate internal know-how and expertise together with continual improvement and benchmarking.		
	To take active leadership of business continuity, specifically providing strategic direction to the crisis management teams.		
	Contributing to policy development, regulatory reporting, crisis management and stress testing, lead the production of aggregated reporting information for Senior Management, write and commentate on global portfolio credit risk positions, effective monitoring and reporting on various internal risk limits/caps and regulatory limits.		
	Oversee Crisis Management plans and support Continuity and Risk activities.		
	Assess, design, and implement resilient architectures for clients		
	Advise in transforming DR solutions to secure environments.		
	Provide support to internal customers, develop and maintain documentation and tracking of key risk information and internal controls, tailor and provide routine risk reporting and stakeholder communications to include both quantitative and qualitative risk information.		

Source: author's

The keyword "risk management" requires more descriptive years of experience (through skills, competencies etc.) and it counts for 50% of job ads. There were 10 out of 18 job ads that required only Bachelor's degree which is exactly 55,56%, while Master's degree was not required at all. Other job ads either did not specify which degree they are looking for or did

not write it in the ad. The largest number of job ads are tied to financial services, which predominates job-related "risk management" ads. The most offered job related to the keyword "Risk Management" is Risk Manager.

7. Limitations and recommendations for further research

Conducted research presents an initial, exploratory effort to analyze crisis management jobs and trends, whereas the conducted research consisted of a relatively small number of analyzed job ads, also narrowed to two analyzed countries, which limits the representativeness and generalizability of results. In our research we have used a convenience sample, and not a random one which has its limitations on making inferential statements and conclusions. Also, a non-exhaustive list of crisis management jobs and activities was used in job analysis LinkedIn search. In addition, since conducted job analysis was qualitative in nature, the results are impacted by researchers' decisions bias. Furthermore, there are also other sources available on employee's skills, competences and knowledge besides the mentioned LinkedIn job ads. They can include recruiting agencies, specialized websites, etc. (Kennan, et al., 2006). Nevertheless, in spite of identified research limitations, conducted initial research provides basic information and could encourage further studies in the field.

Jobs are shifting in their requirements and are ever more interdisciplinary and interconnected. A further research could go in direction of providing an answer whether crisis management jobs will be more specialized or more general in scope of activities? For that purpose, the scope of research could be extended to interviews with experts and practitioners in the field in order to obtain more detailed information.

Further research could also be focused on evaluation of scientific publications in databases in order to find what the academics are focusing on in researching the field, as well as compare the results of academic research to practitioner's demands and see if they are congruent. Also, in future research the aim could be to understand- to what extent are the needed skills delivered by the universities? Another potentially interesting stream of research would be to determine what are the future roles which crisis managers should have and how the crisis management field could develop?

Accordingly, crisis management research, due to its importance and transformation, will most likely be of interest in the upcoming years to many researchers.

8. Conclusion

Professions change and evolve over time. Accordingly, crisis management is going through a transformative stage, and as such there remains a significant amount of research to be conducted and information needed on how to appropriately structure job ads in order to attract skilled and experienced workers. The primary research question was, what is demanded from today's employees in the field of crisis management? In order to answer this question, job advertisements analysis on LinkedIn collected data was conducted. We can infer the following.

Since crisis management is said to be a highly responsible, tactical job where every mistake is costly paid, the required profiles of crisis management employees are most often related to their strong interpersonal skills (such as the ability to work in a high-pressure environment,

strive for self-fulfillment, possess patience and ability to prioritize, have ability to question the status quo, etc.).

In addition, through the required years of experience, employers are looking for potential employees who will bring previous work experience on a new job and therefore be ready for expected challenges. The level of responsibility is high, the level of risk that the employee takes on himself is also particularly high, so employers look in advance for certain skills and competencies that must be met and that is how they immediately reduce the number of registered jobseekers who may, unfortunately, not have enough knowledge or experience.

Crisis management often needs experts from financial services, banking, IT industry, pharmaceutical industry and more. We can conclude that the emphasis is on experience, certain skills and demanding certifications, while expected level of education is usually reduced only to Bachelor's degree.

Skills supply and demand mismatch, requires advancement of new skills through education and training. The curricula itself in today's environment should be flexible and able to adapt to constantly changing trends, firms need and information dissemination channels (Wise, Henninger, Kennan, 2011). Study results comprising of employers' information on required knowledge, skills and competencies can serve as means of improving educational curriculum whereas educational institutions can better adjust in line with new demand for crisis management employees.

Conducted job analysis shed light on crisis management profession, and its demand for expertise. It provides indications of new trends in crisis management and informs on what preferred candidates/employees should possess in terms of skills and qualifications. Such information helps us better understand what employers require from new employees and contributes to HR field as well.

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Appendix 1: Job title, description and skills in job ads for “crisis management”

FIRM	JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS
Amazon Web Services	Crisis Manager	Senior decision-making authority who will help identify, assess and coordinate the communication and response to security related incidents and crisis.	Leadership skills, interpersonal skills (work under pressure, attention to detail, innovative, creative...), written and verbal communication skills, computer skills (MS Office, InfoPath, SharePoint). Proficient in using multiple software applications, typing skills, project management skills.
Rainbow Community Center of Contra Costa	Director Of Youth Services	Supervise, support, and train direct service staff, plan programs and review tracking of goals and objectives. Oversee the submission of participation data. Be the lead for crisis management when needed.	no information
OneLogin, Inc.	Implementation Manager	You will scope out customer engagements, implement the solution and ensure our customers get the most value from our service.	Interpersonal skills, leadership skills, computer skills (HTTP, HTTPS, SSL, IIS, TCP, Radius, Firewall, proxy,...), communication skills, crisis management skills
Cornish College of the Arts	Director of Housing & Residence Life	Responsible for the direction and oversight of the department. Provide leadership and direction for all members of the departmental staff. Review expenditures of all departmental staff. Manage a departmental budget.	Interpersonal skills, high proficiency with technology
Bustle	Office Operations Manager	Review and update existing processes and procedures Responsible for data management Responsible for purchase management Key member of the Incident Response/Crisis Management Support Team helps identify potential/immediate impacts	Interpersonal skills, writing and communication skills. MS Office suite applications skills.
F5 Networks	Manager- Security Operations	providing 24x7 security services Responsible for upholding F5's business code of ethics interviewing/hiring new staff identify and implement operational efficiencies and/or implement service improvements Develop and implement processes for tracking key operational metrics	Interpersonal skills, written and verbal communication skills, organizational, leadership, analytical skills, good understanding of IT.
Mixpanel	IT Operations	Directs the daily operation and	Interpersonal skills, analytical

	Manager	delivery of IT systems Manages services critical to the business and IT systems Provides strategic leadership and tactical oversight in the management of people and operational resources	ability, project management skills.
Fidelus Technologies	Project Manager	Manage the full lifecycle and scope of the project Identify, escalate, and work with the project team to resolve issues Create project plans, including estimating work required Identify risks Manage project costs	Project management skills, communication and interpersonal skills, crisis management skills and technically strong skills.
McGraw-Hill Education	Senior Manager, Global Security & Crisis Management	Support the maintenance and enhancement of the Business Continuity program Administer and coordinate the review, maintenance and testing of Crisis Management Plans Responsible for the development and administration of a global Awareness program	Proficient in MS Word, Excel, Outlook. Written communication skills, project and crisis management skills, analytical skills, organizational and interpersonal skills.
Sharecare, Inc.	VP, Information Security	Oversee the team of security employees Develop, implement, and manage the overall enterprise process Identify protection goals Manage the development Strategy, roadmap and budgeting Lead crisis management	Written, communication and presentation skills, interpersonal skills, problem resolution skills, project management skills.
Victorian Senior Care	Mobile Crisis Team Supervisor	Assist And Supervise Mobile Crisis Management Employees providing crisis response developing a Crisis Plan monitoring or coordination of movement across levels of care Work cooperatively with all other staff	no information
Netflix	Senior Security Intelligence and Response Engineer	will tackle unsolved problems around incident response in the cloud help mature our crisis management and incident response capabilities Developing and executing cross functional tabletops and game days Identifying and closing capability gaps with partner engineering teams	Crisis management experience, Computer and Networking Fundamentals, Scripting or basic coding.
BCD Travel	Regional Account Manager - Corporate Travel	Provide leadership to account team Responsible for the regional coordination of all	Communication skills-oral, written and presentation, ability to travel.

		<p>communication across region</p> <p>Develop Business Plan</p> <p>implement key deliverables,</p> <p>measure results</p> <p>Manage new business implementations</p> <p>Establish and maintain relationships</p>	
GRAIL, Inc	ALLIANCE MANAGEMENT ASSOCIATE DIRECTOR	<p>Work with partner company(s)</p> <p>Crisis management – address hot topic issues that require immediate attention</p> <p>Perform regular alliance audits and “health checks</p> <p>Lead and/or participate in contract renegotiations</p> <p>Look for opportunities to create increased value</p>	Interpersonal skills, leadership skills, analytical skills, communication and writing skills, proficiency in MS Word, Excel and PowerPoint.
BioMarin Pharmaceutical Inc.	Global Security Director	<p>development, implementation, and management of BioMarin’s global corporate security strategy</p> <p>Establish and manage the new global corporate security function</p> <p>Assist in managing the corporate security budget</p> <p>Develop and maintain effective relationships with internal stakeholders</p>	Analytical skills, leadership experience, communication and presentation skills, interpersonal skills.
Huron	Director - Restructuring & Turnaround (New York, Boston, Houston, Dallas, Los Angeles)	<p>deliver objective advice in complex situations involving among other areas: restructuring and turnaround (in and out of bankruptcy</p> <p>Lead multiple engagements and deliver value to customers,</p> <p>Generate sales leads, and manage client relationships.</p> <p>Mentor/developer of Analyst, Associate, and Manager talent</p>	Interpersonal skills, crisis management skills, ability to lead, analyzing skills.
JP Morgan Chase	LDN – Rates – Application Support Analyst	<p>Maintain Global relationships</p> <p>Perform timely escalation of critical production environment incidents</p> <p>Work as part of the production management organization</p> <p>Perform and seek to continuously improve</p> <p>Participate in incident and crisis management events</p>	Interpersonal skills, written and verbal communication skills, technology skills (Unix, database skills, Windows skills, Java,...).
Page Executive	IT Service Manager	<p>Design, develop and implement a broad range of operational support services -incident & problem management</p> <p>Develop key metrics which will define 'great service'</p> <p>Build close partnerships</p> <p>As a key member of the IT</p>	Interpersonal and communication skills.

		leadership team	
Michael Page	IT Service Manager	day-to-day support for all enterprise wide IT systems and services Build close relationships Publish regular performance reports Identify and achieve improvements As a key member of the IT leadership team	IT skills, interpersonal and problem resolution skills.
Michael Page	HSE Manager	preparing, implementing, maintaining and continually improving (Q)EHS management system documentation, procedures and instruction liaising with insurers with regards to employers liability claims and providing risk assessment and crisis management support	Analytical and interpersonal skills, communication skills.
Real	Interim QA Manager	implement compliance and improve the company quality system and support operational teams in delivering agreed quality procedures Systems to include HACCP, crisis management and other You will provide technical support to address consumer and customer complaints	no information
Goldman Sachs	Legal, Litigation and Regulatory Proceedings , Analyst/Associate, London	Process and risk assess all new matters and monitor the development of existing matters Help design, implement and monitor policies, procedures and systems in order to minimize organizational risk and for crisis management	no information
Capita	Senior Head of Learning Services	Ensure customer expectations are met and/or exceeded - KPIs, SLAs and Customer Satisfaction survey results Support the sales team design and delivery of the Operational strategy Ownership of Managed Learning Services ISO, Business Continuity and Crisis Management	Interpersonal skills, verbal communication skills, analytical skills
MaxAd	Business Systems Manager	Evaluate and review the Enterprise Resource Planning (ERP) system functionalities and ensure that the business's operational system requirements are being achieved by the supplier.	IT skills (Microsoft technologies and IT infrastructure planning and development), understanding of e-Business

		Plan and coordinate the ERP version upgrade process Develop and maintain a business ICT "crisis management" document	
London Southend airport	Security Manager	To lead and motivate the operational teams to deliver the departmental business plan and KPI's Act as a member of Crisis Management Team To demonstrate a professional and competent approach to the management of the airport safety management system	Communication, leadership and interpersonal skills.
Insight	Manager of IT	Responsible for application availability, quality of service and seek opportunities to reduce incidents. Establish and lead a high performing, appropriately skilled technical team. Diagnose complex technical and business problems and implement creative solutions.	Computer skills, interpersonal skills, communication skills, analytical and organizational skills.
Morgan Stanley	Major Incident Manager - Enterprise Command Center	advising and consulting with other IT teams on processes relating to Incident Management, Problem Management and Change Management. work with IT teams to improve the overall stability assist in driving educational, training and communication programs	Organizational skills, interpersonal, troubleshooting skills, crisis management and communication skills, IT skills.
Fusion People	Operations Manager	will be responsible for the operational requirements of the Financial Risks Divisions (PI, FI, D&O, Crisis Management and Political Risks) as well as liaising with numerous other departments within the business including Compliance, Technical Operations and Credit Control	no information
Page Personnel	Facilities Manager	Preparation, control and monitoring of the service charge budge prepare management reports To be responsible for all health and safety compliance To proactively manage risk and deal with insurance compliance Ensure a Crisis Management plan is in place	Interpersonal skills and communication skills.
Inmarsat	Aero Operations Manager	ensure that there is the appropriate operational support lead crisis management and be responsible for the appropriate	Interpersonal skills, understanding of digital communications networks, PC skills, communication and

		internal and external communication, post mortal crisis analysis and damage control responsible of maintaining and organizing operational review meeting	analytical skills
Cigna	Senior Unified Security Support Engineer	Provide leadership during firewall and VPN problem determination efforts Provide planning and vendor oversight for firewall and VPN changes Drive process improvements and procedures that will improve overall Security Service Delivery to the customer Provide periodic performance reports	IT skills (LAN switching and router technologies, wireless technology, VoIP technology...), crisis management, interpersonal, communication and writing skills.
JP Morgan Chase	Corporate - Global Security & Investigations - EMEA Alarm Monitoring Centre Manager - Associate	Ensure compliance with health and safety risk assessments Ensure reports for incidents/Alarm Responses are compiled Strategy development and setting aims/objectives of the department Development, introduction and maintenance of departmental policies Build strong relationships	Communication (written and oral), organizational skills, IT skills, Interpersonal skills.
Unisys	Management & Crisis Management	lead the execution of Major Incident Management (MIM) Support services, including supervising rapid resource assignment and allocation procedures to restore service as soon as possible during major outages Can lead corporate level crisis management bridges	Writing and verbal communication and presentation skills, technical skills, troubleshooting skills.
San Manuel Indian Bingo & Casino	Crisis Management Specialist	responsible for execution of an integrated, long-term strategy for Crisis Management Provide management, leadership, influence, support and oversight to ensure alignment of strategic road-map objectives and timely execution Administer and coordinate the review, maintenance and testing of Crisis Management Plans	Verbal communication and writing skills, crisis management skills, leadership skills.
Liberty Mutual Insurance	Sr. Underwriter, Crisis Management	Establishes and maintains relationships with the brokerage community Makes independent marketing	Writing, verbal communication, interpersonal, crisis management and analytical skills.

		calls to brokers and prospective insurers Contributes to the development of marketing plans, product analysis, services, geographic focus and broker intelligence	
MetLife	AVP, Crisis Management	focus on the continued coordination, implementation and maintenance of the Global Crisis Management program Develops and maintains crisis communications protocols and channels Develops exercise scenarios, training materials and drives crisis preparedness and response awareness content for all employees.	Leadership, crisis management skills, project management, interpersonal, oral and written communication skills.

Source: author's

Appendix 2: Job title, description and skills in job ads for “crisis communication”

COMPANY	JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS
CF Industries	Manager, Emergency Preparedness & Response	Plan to ensure effective, efficient response and communications between the Locations and Corporate. Develop and implement a strategy for improvement in the Emergency Response system. Support HR in the implementation emergency humanitarian assistance plans.	Interpersonal skills (self-confidence, flexibility, honesty, integrity...), organizational and planning skills, leading skills, knowledge of regulations, writing, computer and verbal communication skills.
Georgia-Pacific LLC	Public Affairs Manager II	Provide public affairs and communications leadership and support. Develop, implement and manage a comprehensive employee communications program. Develop communications plan for crises. Establish strong relationships with community/mill area.	Writing and verbal communication skills, knowledge of regulations, editing and video production skills, experience with social media and web-based communication tools (SharePoint or other).
Morrison & Foerster LLP	Public Relations Manager	Provide support with critical internal communications and crisis management initiatives. Participates in the firm’s public relations strategic development and planning. Develops effective relationships with partners. Analyzes and reports back on results of PR campaigns.	Interpersonal skills (passionate about media relations, proactive, self-motivated...), planning and organizational skills, writing and verbal communication skills.
Rational Interaction	Technical Support Community Manager	Partner with engineering team to understand and provide rapid communications to customers on incidents. Triage all customer communications through social channels and determine appropriate communication plan and customer resolution path.	Interpersonal skills (high attention to detail, able to problem solve logically and think critically, self-motivated...), experience with social media (Twitter, Reddit, MSDN,..) and tools (Brandwatch and Sprinklr), technical skills.
San Francisco Public Utilities Commission	Director of Communications (0941)	Responsible for crisis management related to communications. Lead internal collaboration with Executive members and managerial staff. Public education and media establish and maintain a broad and deep network.	Interpersonal skills (pays attention to detail, strategic thinker, collaborative, high emotional IQ,...), verbal communication skills, organizational skills,
Verizon	Digital Account Director - In-house Agency	Responsibility for recommending new products and updating standard offerings; building strong client relationships; resolving conflicts; improving communication; Attends sales, strategy, status, project kickoff, and other client meetings.	Project management and crisis management skills, interpersonal skills (ability to multitask), written and verbal communication skills. Organizational skills, computer skills (MS Office and project management software),
Resolute Consulting LLC	Media Relations Specialist	Identify and develop relationships with media contacts; Develop, plan and supervise media events, news conferences, and other earned media	Writing and verbal communication skills, Interpersonal skills, Social media (Twitter, Facebook,

		opportunities; Assist in crisis management; Support the implementation of overall strategic communications plans.	Instagram, Snap, etc.), organizational skills, research and analytical skills.
Health Warrior, Inc.	Consumer Engagement Specialist	Plans, develops and executes social programs. Proactively identify real time opportunities. Lead all social reporting & analytics; Monitor competitors' social media activities. Answer all in-coming customer service calls and e-mails.	no information
Okta, Inc.	Senior Customer Success Manager (Denver)	Develop a relationship with customer stakeholders and executive sponsors. Monitor and identify adoption and utilization trends, provide recommendations based on risk and customers' business needs; Conduct periodic customer health-checks.	Communication skills, crisis management experience, Computer skills and experience (Saas vendors such as Box, Google Apps, NetSuite, Salesforce, Service Now and Workday preferred)
Merit Service Solutions	Site Performance Owner - Facilities Maintenance	Lead, manage and supervise all aspects of MERIT services. Develop client relationship. Identify and selling landscape enhancements Crisis management, including rapid and reliable response to service challenges. Work with account management team.	no information
onPeak	Account Executive - Event Accommodation	Consult clients in effective housing management. Analyze performance of event's hotel block pick-up and registration numbers against history and event budget. Develop project management timelines. Create event revenue projections, budgets and periodic re-forecasting.	Interpersonal skills (self-motivated, positive attitude, detail oriented,...), technical skills (MS Office), Crisis management and resolution skills, verbal and written communication and presentation skills, project management skills, organizational and analytical skills.
Direct Impact	Communication Specialist	Acting as a liaison between the client's facilities and corporate office. Identifying issues as well as opportunities for the client. Write reports and internal newsletters. Manage the social media and digital presence for the company's offices.	Writing and internal communication skills, organizational skills, interpersonal skills (multi-tasking), social media experience, knowledge of local media environment.
Allstate	Senior Communications Consultant - Allstate Investments	Developing and maintaining professional relationships with business partners. Assisting with the development long- and short-term, integrated strategic communication plans. Supporting existing employee communication and identifying opportunities. Contributing new and innovative communications solutions.	Interpersonal skills (creative, persuasive), written, verbal and multi-media skills, project management skills, traditional media and social media skills.
Pinnacle Foods	Director Corporate Communications	Develop and manage internal and external communications. Develop content and graphic layout for	Crisis management experience, verbal and written skills,

		quarterly newsletter. Defining processes and developing training and communication materials for corporate/regional crisis management situations. Researching and defining relevant Key Performance Indicators.	organizational skills, interpersonal skills (adapts to changing situations, open-minded,...)
Herbalife	Intern, Marketing, Communication & Technology Track	Defining processes and developing training and communication materials for corporate/regional crisis management situations. Researching and defining relevant Key Performance Indicators	Analytical, organizational, interpersonal, writing and verbal communication skills. Computer skills (MS Office).
Counterpart International	DRC Security Manager	Ensure communication systems are adequate and maintained and is in place to instantly respond to a crisis management situation. Update and maintain security plans. Publish, implement and promote the approved documents. Ensure contingency plans. Research and analyze security-related information.	Knowledge of risk management, Fluent in written and spoken French and English, writing and analytical skills, interpersonal skills
TerumoBCT	Senior Manager, Integrated Communications (External)	Responsible for co-developing, organizing and executing corporate crisis management. Lead a team (both direct and cross functionally) of marketing & communications. Develops and reports on key performance metrics for marketing & communications programs for public relations.	Interpersonal skills (ability to educate others), organizational skills, leadership skills, project management skills
Blue Cross and Blue Shield of North Carolina	Senior Internal Communications Specialist (Business Transformation)	Develop appropriate communication deliverables in support of internal communications, public relations and/or divisional initiative. Provide strategic communications counsel. Researches, refines, analyzes, summarizes and makes use of relevant information in preparation of communications.	Interpersonal skills, writing and verbal communication skills, social media experience, program management skills, computer skills (MS Office)
rag & bone	Director Of Public Relations	Oversee PR activities. Creates features to target applicable audiences and maximize brand visibility. Develop and maintain strong working relationships with key features editors and partners. Oversee all internal communication. Leads media crisis management, proactively strategizes, troubleshoots and creates solutions.	Interpersonal skills, communication skills
GVA UK	Head of Communications	Identifying and building relationships to promote the organization, developing and managing PR campaigns. Advise the business on all corporate internal and external messaging. Develop and maintain appropriate channels and communications platforms.	no information
Wells Tobias	Press Officer	The role will involve; Media	no information

		relations, Campaign management and Crisis management. Developing media plans. Spotting tactical media opportunities. Building excellent relationships with print, broadcast and digital media and generating positive news through social media.	
Hales Group	PR Professional	Devising/implementing PR strategies for a range of clients. Advising clients on media management and strategies. Producing media collateral, press releases, speech writing etc. Inputting into crisis management scenarios.	knowledge of social media
Michael Page	Social Media Relations & Analytics Manager	Management of internal and external social media channels. Respond to comments and enquiries, escalating issues as appropriate with crisis management and other key business events. Exercise proactive and reactive social media activities and effective use of web analytics.	Interpersonal skills (networking, negotiation skills,...), writing and verbal communication skills, organizational skills, able to provide guidance and demonstrate authority
GlaxoSmithKline	Senior Manager, Global Vaccines Medical External Communications	Responsible for planning, development and delivery of strategic external communications. Oversee communications agency involvement in the development and execution of relevant communications plans and materials, including effective budget management.	Interpersonal skills (creative thinking, ability to develop strong relationship,...), crisis management skills, verbal and written skills, organizational skills, experience with social media and problem solving skills
Adam Recruitment	Managing Director - Marketing	Lead, motivate and inspire the staff, external businesses, public sector organizations and communities to deliver key business objectives and mission objectives. Identify, support and execute strategic marketing initiatives and campaigns.	crisis management , project management skills, experience with social media and public speaking, leadership skills and interpersonal skills.
Aquent France	SubSaharan Africa Communications and PR Manager	Lead proactive and reactive projects in Sub-Sahara Africa. Lead and execute PR strategy, plans, programs and budgets based on brand image, sales objectives and company goals. Support brand/corporate reputation through crisis/issues effective management.	Leadership skills, crisis management experience, planning skills, interpersonal skills, project management and decision-making skills, verbal and written communication skills.
giffgaff	Junior Social Media Manager	Delivery and support of the Marketing team's social media strategy and plans. Social media content calendar management for both internal and external use. Assisting with social media crisis management. Identifying key social media influencers, developing new relationships. Act as an advocate.	Writing skills, Social media experience (Google +, Youtube, Facebook, Twitter,...), interpersonal, organizational, editing skills, Technical skills (knowledge of social media management software-SproutSocial or similar).
Clifford Chance	GBR - Internal Communications	Support the internal communications. Work closely with the Risk &	Writing and verbal communication skills,

	Specialist	Compliance team to ensure their messages are aligned and meaningfully delivered. Provide internal communications support for the Firm's ongoing Business Continuity Planning effort.	interpersonal skills (self-starter, motivated, proactive, team player,), organizational skills.
Eurostar	Press Officer - Fixed Term Contract	Working with the press officers based in France and Belgium. Develop effective, innovative PR campaigns. Identify internal 'news' opportunities. Build strong relationships with relevant media across all relevant markets. Plan and manage media events. Act as a spokesperson	Interpersonal skills (creative, flexible, outgoing personality,...), writing skills (English and French)
Coty	Corporate Affairs Manager	Develop and deliver CSR content for internal and external digital channels. Responsible for update and communication of issues/crisis management process and online/digital tools to internal audience. Deliver project management and effective organization for key priorities	Writing skills, editing and design skills, video production skills, project management skills, experience with social media.
Prime Appointments	Public Relations Manager	Measure audience awareness, recall and perceptions along with competitor benchmarks. Manage brand values, identity and positioning including any crisis management and optimizing reviews. Increase quality and quantity of coverage all non-paid media. Monitor industry new and developments.	Strong communication skills
Hostelworld Group	Interim PR Manager	Manage and execute the defined PR strategy. Develop, manage and extract maximum value from Hostelworld's media relations. Coordinate and manage all public relations. Track and communicate PR results on a regular basis to the company. Protect the brand.	Leadership skills, organizational, editing, interpersonal skills, experience with social media, data and analytical skills, writing and verbal communication skills.
Morgan A Jones	Senior PR Manager	Develop and lead a national PR strategy. Act as a first point of contact for management led press releases. Develop and maintain active relationships. Create press releases and articles. Identify, assess and implement media training needs across the business.	no information
Hales Group	Project Manager/Journalist	Implementing PR strategies for a range of clients. Advising clients on media management and strategies. Inputting into crisis management scenarios. Developing online PR strategies, including producing content calendars and monitoring	no information

		client sites. Building relationships with key media.	
Hays Specialist Recruitment	Corporate Communications Manager	Drive a proactive PR strategy. Build deep relationships with the press and influencers in the UK. Provide communications support across European markets. Lead crisis management in the UK market.	Written communication skills, crisis management experience, project management and organizational skills, interpersonal skills.
W. L. Gore & Associates	Global Public Relations Associate (Elkton, MD)	Developing and implementing global PR strategy. Developing PR content. Aligned crisis management in NA. Global crisis management, as part of Enterprise process. Leading and driving development of global PR team.	Interpersonal skills (creative, consumer focus, team player...), experience with communication tools, writing and verbal communication skills, leading and project management skills.
ModSquad	VP of Digital Media	Create and develop a new digital media practice. Analyze social media listening and monitoring data. Work with clients to develop social marketing programs. Regularly counsel clients on digital and social media strategies. Work as a mentor for team.	Understanding of social media platforms and ROI metrics
CallidusCloud	Senior Director of Analyst & Public Relations	Creating and coordinating a global strategy plan to engage influencers, through a combination of traditional media as well as social channels, and building out a team to manage analyst relations, social media and public relations	Interpersonal skills, familiarity with enterprise software and social media, writing and communication skills, leadership skills.
TUNE	Corporate Communications Manager	developing and leading TUNE's communications strategy support the leadership team build and maintain analyst/influencer relations Working closely with the marketing team Setting measurable objectives for the communications function	Interpersonal skills, writing and communication skills.
Coinbase	Strategic Communications Associate	Develop and execute strategic PR & communication plans to build Coinbase's brand and reputation e.g. product launches, new country expansion, crisis management Manage and build relationships with key journalists and influencers	Interpersonal skills (passion for digital currencies, comfortable working in a fast-paces, dynamic environment), written and verbal communication skills.
Whole Foods Market	Director Public Relations	managing and executing public relations and corporate communications efforts responsible for maintaining relationships with key members of regional leadership team 1. support issues/crisis management as needed Serve as eyes and ears for pending issues	Organizational skills, interpersonal skills, communication and writing skills.
Hill+Knowlton	Fellow, Corporate	Participate and provide detailed client	Organizational,

Strategies	Advisory	notes/action items from meetings Help to manage workflow and status updates delivered to the client Engage in tactical PR activities such as media outreach, social media monitoring, crisis management, and more	interpersonal, leadership, research skills, writing skills.
Intuit	Vice President Corporate Communications	lead Intuit's product and brand communications strategy; responsible for the strategic development of all communications for Tax and Consumer PR, social media and employee, communications, Media relations, Issues and crisis management	Interpersonal skills, writing and verbal communication skills.
Savills Management Resources	Marketing Manager	Create site specific marketing and PR strategies Build third party relationships Co-ordinate blogger events, as appropriate Report on agreed set of KPI's. Management of the overall marketing budget Identifying new opportunities to generate revenue	Interpersonal skills, reporting skills.
6 Degrees Talent	Digital Content Marketer	Develop the ongoing content and social strategy for a global brand Define the annual engagement strategy Manage digital communities and social media campaigns Create and implement strategies Work with production, marketing and sales teams	Analytics tools and skills, editing software (PhotoShop, Canva, Illustrator), interpersonal skills
CenturyLink	Client Technology Advisor	Provide an extension of the client's technical team Build effective relationships at all level Engage with sales, solutions engineering and implementation team to facilitate smooth running and faster introduction of new technology, service implementation and changes	Leadership, interpersonal, communication skills.
MWWPR	Account Supervisor, Corporate Communications & Crisis Management	Lead integrated campaigns Independently manage the creation of press materials Moderate media interviews Take a leadership role in new business proposal development Manage, provides mentorship, and delegate to junior staff	Oral and written communication skills, experience with social media, mentorship aptitude, IT skills.

Source: author's

Appendix 3: Appendix 1: Job title, description and skills in job ads for “business continuity and resilience”

COMPANY	JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS
Ulta Beauty	The Business Continuity Manager	To assist in the continued development, implementation and maintenance of company's business continuity and crisis management strategies and solutions, including risk assessments, business impact analyses, strategy selection and documentation of business continuity and crisis management procedures.	Interpersonal skills (must be able to build strong relationships in a complex business environment, to be self-motivated and work effectively as an individual contributor); communication skills (ability to effectively communicate with stakeholders to execute emergency and security measures to their maximum potential and achieve buy-in of emergency and security practices)
Webster Bank	Business Continuity Analyst	Provides guidance in identifying and defining critical systems and in assessing potential business impacts if they are interrupted, assist with the implementation of recovery solutions., coordinate development of business, report the business continuity status, provide expertise and support to management, provide 7x24 on-call support for any emergency.	no information
Green Dot Corporation	Business Continuity Analyst	Responsible for building, maintaining, and leading the corporation's and its subsidiaries business continuity and crisis management programs. Ensuring regulatory compliance; heavy involvement with business recovery planning. To establish appropriate preparedness efforts to sustain and safeguard the corporation's brand and reputation.	Communication skills with individuals and groups; ability to lead others and team projects (e.g. prioritizes work, provides effective training, and coordinates multiple tasks).
Zendesk	Business Continuity Analyst	Provide business continuity and disaster recovery subject matter expertise to ensuring high availability, appropriate risk mitigation, and recoverability that conforms to business needs.	Interpersonal skills (able to communicate with a wide range of teams throughout the organization, to obtain answers to difficult questions, able to effectively work with technical and non-technical resources, patience and ability to prioritize); comfortable presenting and communicating skills; excellent communication skills and a healthy desire for collaboration, using strong organizational skills.
Asurion	Business Resiliency	Demonstrates basic competence in “Business Resiliency” phases and processes, including Crisis Management. Assists in multiple and/or more complex continuity planning and testing objectives with cross-functional impact. Works with guidance from manager and principals while building increased knowledge base and skill set related to “Business Resiliency”.	no information
JPMorgan Chase & Co	Oversight and Control – Associate – Firmwide Risk	To identify and remediate control issues, to work in partnership on the development of new, and oversight of existing, control functions and protocols,	Strong analytical and problem solving abilities; effective communicator at all levels; strong leadership and influencing skills.

	Management Regional Business Resiliency Manager	to undertake the full spectrum of resiliency management responsibilities and provide central oversight of the state of resiliency.	
MoneyGram International	Sr Business Continuity Planner	To develop and maintain Business Continuity and Disaster Recovery plans that provide for the continuance of critical business functions during crisis situations. Responsible for conducting and maintaining Business Impact Analysis (BIA) and developing BCP-Business Continuity Plans with viable business continuation strategies.	Excellent oral, written, interpersonal (ability to question the status quo, identify improvements and effectively drive change, self-starter with the ability to work under the pressure of deadlines), presentation and analytical skills.
Seagate Technology	Sr. Staff Program Mgr. Business Continuity	Overall technical direction and oversight in the development and execution of the Business Continuity Program for the company's global operations.	Comprehensive analytical skills with the ability to determine actionable projects that achieve results; excellent coaching, teaching and training skills; program management skills; excellent interpersonal skills; strong verbal and written communication, negotiating and presentation skills.
Bank of America	Response Readiness Business Continuity Consultant	To deliver a standardized Enterprise Event Response Readiness Program (EERRP) allowing the Company to demonstrate resiliency in a matrixed environment with a keen focus on building relationships.	Strong written and verbal communication skills; interpersonal skills (ability to establish and grow strong relationships, ability to manage multiple tasks successfully and efficiently in a fast paced, regulatory driven environment, ability to quickly develop subject matter expertise across a broad spectrum of issues); strong Business Continuity/Disaster Recovery Management and/or Crisis Management discipline.
Brooksource	IT Disaster Recovery Specialist	To facilitate and coordinate the development of IT's disaster recovery plan and organizational business continuity plans. You will assist with management of the IT disaster recovery exercises and provide test results documentation. You will also assist with the maintenance of Business Continuity Plans including structured walkthroughs and table top exercise with the business.	Research, problem solving and analytical skills (ability to create KPI's, dashboards, metrics and reporting), technical/computer skills (ability to work on Information Technology sponsored projects).
Vmware	Senior Business Analyst	To play a key role in Resiliency program, establish trusted relationships with business stakeholders, build strong relationships and processes with partner teams, ensure coordination with teams and provide global coverage for Enterprise Resiliency services.	Interpersonal skills (capable of working collaboratively in a challenging, dynamic and global environment, strong track record in developing, implementing and refining Enterprise Resiliency processes); skilled at preparing risk readouts and reporting at all levels of the company.
Booz Allen Hamilton	Business Continuity Practitioner	To support the client's overarching business continuity program, to update the crisis management program continuously, to develop materials, meet with stakeholders, and collect data to support routine self-assessments, to perform monitoring and reporting.	Research, problem solving and analytical skills; possession of excellent oral and written communication skills.
Bank of the West	Business Continuity Specialist	Responsible for developing and maintaining business continuity and disaster response plans. Develops or	no information

		assists in developing and maintaining an enterprise wide Pandemic Plan, to address crisis management response triggers. Develops and maintains an enterprise wide Crisis Management framework.	
PlayStation	Manager - Emergency Management	To recommend solutions to overcome gaps to assure the preparedness, continuity, and recovery of personnel and facilities. Deliverables will include products and services designed to directly influence emergency preparedness planning, associated training and the delivery and implementation of disaster readiness plans and exercises. Reports to the Senior Director of Corporate Security.	Superior organization, technical writing and overarching communication skills; interpersonal skills (ability to operate and work within a complex, networked organization requiring high levels of self-direction, autonomy and diplomacy, demonstrated ability to manage third-party vendor contracts).
Microsoft	Senior AX Consultant	Helps identify, pursue and close strategic business development opportunities while continually driving existing projects. They also play a key role in employing, leveraging partners and off-shore teams as part of the overall Microsoft services delivery model.	Skill in both crisis management and expectation management (able to deliver effective strategic presentations to audiences of all sizes and possess excellent communication skills); interpersonal skills (ability to architect solutions by mapping customer business problems to reusable end-to-end business application solutions).
Lorien	Business Continuity Manager / Business Continuity Consultant	Work primarily on the delivery of client facing Business Continuity projects. To deliver project activities and deliverables. Expected to work by themselves and/or as part of a consultancy team, depending on the requirements of the project.	Interpersonal skills (ability to establish, develop and maintain positive and professional stakeholder relationships, ability to work and manage multiple client engagements concurrently to tight delivery deadlines); writing skills (in particular planning and report writing skills); excellent presentation skills, excellent communicator.
Michael Page	Head of Risk	Design and take ownership of a single risk management process, ensure best practice risk management is embedded, review current risk identification processes, assist in developing an approach to risk quantification, develop a clear process of reporting risk.	Excellent communicator at all levels, both written and verbal.
SUNGARD	Business Resilience Consultant	Sought to help company's clients develop their capability to anticipate, prevent, respond, and recover from disruptive incidents. To be able to advice organizations on how to harness resilience elements and to manage operational business risk in an effective and efficient manner.	Interpersonal skills (understands the internal and external client business factors impacting projects and manages client assignments effectively by delivering timely solutions while balancing priorities and managing time effectively, understands the consulting environment and its commercial aspects); mentor, leadership and monitoring skills (uses a range of techniques, including facilitation, coaching and mentoring to deliver solutions of mutual benefit to clients and consultants).
Microsoft	Cybersecurity Solutions Architect	To define appropriate customer solution, scope the effort and provide technical leadership in sales pursuits. Requires assisting customers in architecting, planning and applying governance for company Cybersecurity Solutions as appropriate.	Knowledge of regulations.
Microsoft	Architect	To manage the complete lifecycle of large	Advanced analysis skills, ability to lead and

		and complex projects, to maintain effective product group relationships, to assess feasibility of migrating customer solutions, to help translate business requirements into technology requirements.	motivate technical communities.
New Appointments Group	Business Continuity - Client Manager	To provide Business Continuity (BC) and Crisis Management (CM) consultancy services to current key clients, worldwide. Liaise with clients to organize contracts, delivery dates and work deadlines. Develop and deliver Business Continuity Plans and workshops.	no information
Macquarie	Business Resilience Analyst	Accountable for the provision of information, tools and processes that enable the organization to understand, plan for and respond to business disruptions. Work closely with the EMEA Head of Resilience as well as regional business leaders on projects that affect the resilience of critical business operations.	Interpersonal skills (ability to work in a high pressure environment, ability to adapt quickly within an ever changing environment, ability to interact with all levels of the organization with confidence).
Southampton Airport Safety	Health & Environment Manager	Responsible for the management and provision of safety, health and environmental advice and guidance to the business in support of legislation, best practice, International and British Standards and company procedures. Participate in projects and working parties and carry out any other duties.	Technical/computer skills.
Red Hat Regional	Security and Safety Manager – EMEA	To act as program lead in the delivery of projects, to be the primary point of contact for business stakeholders and communication conduit in the area of security, life safety, and emergency preparedness and response.	Interpersonal skills (ability to thrive in a fast-paced environment that requires you to be proactive, self-sufficient, and manage your time effectively); demonstrated ability to lead others and team projects (e.g. prioritize work, provide effective training, and coordinate multiple tasks), demonstrated clear, concise, and effective communication skills.
Robert Walters	Resilience and Business Continuity Manager	To provide guidance, governance and implementation support to ensure the Group Resilience policies and framework are implemented across the client's Group Information Security (GIS) Policy.	Interpersonal skills (logical decision making, effective listening and utmost professionalism); verbal communication and writing skills (must be able to communicate effectively, both orally and in writing, with clients, customers, colleagues and subordinates).
Jobs in New York State	Business Continuity Management Systems Analyst - University of Rochester	Responsible for the ongoing development, implementation, exercising and maintenance of the business continuity and disaster recovery plans; educates on business continuity plans to build resiliency in the end user population responsible for centralized crisis management coordination.	Project management skills.

Source: authors's

Appendix 4: Job title, description and skills in job ads for “risk management”

COMPANY	JOB TITLE	JOB DESCRIPTION (max 30 words)	SKILLS
Alnylam Pharmaceuticals	Sr. Manager, Environmental Health & Safety	Responsible for evaluating, developing, planning, leading and executing environmental, health and safety programs and activities. Responsible for ensuring compliance, safety regulations and practices. Oversee Crisis Management plans and support Continuity and Risk activities.	no information
Deloitte	Cyber Technical Resilience Manager	Assess, design, and implement resilient architectures for clients. Help complex organizations more confidently pursue their growth, innovation and performance agendas through proactive management of the associated cyber risks. Advise in transforming DR solutions to secure environments.	no information
Smashburger	Director of Risk Management	Responsible for strategic analysis of the Company’s insurance programs, safety and security policies, developing and leading strategic initiatives that reduce cost, enhance operations, and optimize profitability at all levels of a corporation. Directing, evaluating, assessing and identifying risks company-wide and determining the most appropriate risk transfer and financing programs and mitigation strategies.	Strong analytical and interpersonal skills (strong understanding of Worker’s Compensation, General Liability and Property, understanding of financial aspects of risk management including actuarial analysis, allocation of risk programs, claim trend analysis and management reporting required).
SS&C Technologies	Investment Accounting Software Manager	Consistently provide accurate, cost-effective and reliable implementations of SS&C’s CAMRA and Precision LM products, including investment accounting platforms for both SS&C outsourcing clients and licensed clients, providing information and support to clients, work closely with internal stakeholders to ensure implementations are best-in-class.	Interpersonal skills in cooperation with crisis-management knowledge (ability to work under high pressure to meet deliverables in a fast paced environment using crisis-management skills, ability to multi-task and prioritize to accomplish workload efficiently under minimal supervision); verbal communication and writing skills (demonstrated, proactive and responsive communication skills). both verbal and written
Northern Trust Corporation	Manager, Credit Risk - Hedge Fund Lead	Reporting to the Head. Develop/enhance/maintain framework for the oversight of hedge funds, including policies, guidelines and metrics. Develop relationships with hedge fund counterparties, perform on-site due diligence, analyze financial statements and strategies, prepare and present credit reviews of assigned portfolio to credit committees together with appropriate credit recommendations.	Excellent communication, verbal and leadership skills; interpersonal skills (ability to multi-task on several assignments at once); analytical, writing and quantitative skills; strong relationship and presentation skills.
The World Bank	Senior Security Specialist	To support global operations by employing risk mitigation strategies and promoting the principle of a shared responsibility for security and safety. Responsible for coordinating operational security services across the region.	Excellent interpersonal skills.

KellyMitchell Group	Risk Management Specialist	Provide support to internal customers, develop and maintain documentation and tracking of key risk information and internal controls, tailor and provide routine risk reporting and stakeholder communications to include both quantitative and qualitative risk information.	Strong communication, presentation and analytical skills, strong leadership skills and interpersonal skills (to be highly organized and be able to manage multiple priorities with minimal direction, must be able to communicate effectively with technical subject matter experts and be able to comprehend technical material and concepts).
Reach Volunteering	Volunteer Trustees (PR, Media, Marketing and/or Branding experience)	Focused on developing and overseeing the organization's Communications Strategy, assisting with the development and implementation of the communications strategy, including refining key audiences and messaging. To ensure that the charity is run properly, responsibly and lawfully in the interests of its members in accordance with its constitution; To respond efficiently and properly to all donors and beneficiaries; to report accurately and at least annually to the members of the charity.	no information
Barclays	Employee Communications Business Partner	Build strong relationships with stakeholders, define stakeholders' communications requirements and provide them with strategic advice and counsel, develop and deliver leadership communication approaches, develop channel approaches and plans, ensure that all activities and duties are carried out in full compliance with regulatory requirements.	Excellent strategy creation and planning skills (including channel strategy and audience segmentation); strong leadership skills, understanding and managing relevant risk (governance, compliance and control issues); excellent writing skills.
Barclays	Delivery Specialist	To supervise and manage the delivery of all the day-to-day activities across all Resilience areas and manage the team of delivery specialists who deliver and execute the activities/requests; respect, co-operate and work in harmony with others in pursuit of team goals/objectives; ensure that all activities and duties are carried out in full compliance with regulatory requirements.	Interpersonal skills; good influencing and negotiation skills; strong analytical skills (able to analyze performance, forecast trends and develop strategy around service improvements); excellent verbal and written communication capabilities.
IAC	Senior Internal Audit Manager	Be accountable for the design and delivery of the audit plan for the Group. To take active leadership of business continuity, specifically providing strategic direction to the crisis management teams and the individual plan owners. To undertake ad-hoc projects and involvement in business led initiatives as appropriate.	Demonstrate excellent interpersonal skills (ability to quickly build rapport and relationships with line managers).
J.P.Morgan CIB	Treasury Services - Product Risk - Risk Manager - Associate	Develop a good understanding of credit and operational risks. Get involved in discussions on risk issues, control analysis and risk mitigation with Product, Sales, and Credit Risk. Support the team in managing crisis situations (client or country-specific).	Strong analytical skills; interpersonal skills (attention to detail, partnership and team work; self-discipline and excellent time management, ability to react quickly and work accurately and methodically in a pressurized environment, confidence in dealing with different levels

			of management and other stakeholders); strong negotiation and influencing skills.
Matchtech	Compliance Manager - Part Time	To effectively identify, assess and manage enterprise risk, to ensure appropriate reporting on, and escalating of, key risk matters across the Group, to develop and maintain appropriate internal know-how and expertise together with continual improvement and benchmarking, to lead and be responsible for managing and overseeing.	Interpersonal skills (ability to manage a heavy and varied work-load, ability to adapt in a changing business environment and to embrace and implement change); strong presentation and communication skills.
KCC Environment	Health & Safety - Senior Manager	Provide leadership for the organization. Develop system improvement plans and insure team compliance to required reporting activities. Insure organization has appropriate subject matter expertise for internal and external regulations, guidelines and practices; responsible to ensure that the facility Management System is established, implemented and maintained.	Interpersonal skills (be a strategic thinker, be willing to challenge the status quo, personal and organizational sensitivity, vision, inspiration, innovation, talent building, decisive); mentor, leadership and monitoring skills (lead teams, and be part of a team, lead culture change efforts); strong communication, collaborating and influencing skills.
Robert Walters	Credit Regulatory Risk Manager	Contributing to policy development, regulatory reporting, crisis management and stress testing, lead the production of aggregated reporting information for Senior Management, write and commentate on global portfolio credit risk positions, effective monitoring and reporting on various internal risk limits/caps and regulatory limits.	Research, problem solving and analytical skills; technical/computer skills (experience using MS Excel & Access).
TUI	Aviation Security Manager	Responsible for managing the airline's operational security functions and ensuring all security risks are identified and managed, where appropriate, in compliance with national and international regulation and legislation for the airline, to lead the business in identifying, assessing, and responding to new and emerging security risks.	Written communication skills; presentation skills; organization skills (ability to deliver to set deadlines); interpersonal skills (ability to build strong working relationships across the business and with external agencies, ability to work independently and in teams where required, highly motivated and able to work under own initiative).
Robert Half	Interim Head of Risk And Compliance	To take full ownership of the Compliance and Risk function and ensure that all effective Policies, Processes, Controls and Governance are in place to deal with crisis management and the wider compliance and risk issues, previous interaction with regulatory bodies and the confidence to fix functional issues, to lead team of 3 to 4.	no information
Dataminr, Inc.	Account Executive, SaaS Risk/Crisis Management	Develop and nurture relationships, strategically navigate and influence all stakeholders in the buying process, ensure a regular and productive feedback loop.	Communication skills; written communication skills; interpersonal skills.

Source: author's