

Job Analysis and its Positive Impact on key Recruitment and Selection Processes: A Case Study

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Abstract

Following a Functional Job Analysis methodology in which job duties and job specifications were initially identified, key Knowledge, Skills, Abilities and Other Attributes (KSAO's) were extracted from critical statements using task statements and task inventory for a Canadian National Occupational job classification requisite position. The KSAO's were further differentiated on the basis of Tasks, Context and Counter-productive behavioral components. A Performance Appraisal tool was developed based on an Absolute Rating System using Graphical Rating Scales aligned to the Knowledge, Skills, Abilities and Other Attributes derived from job analysis. Job Performance Dimensions were explained for each of the task, contextual and counter-productive behaviors in terms of what each dimension meant in the context of the job; with a definition given for each job dimension including verbal anchors attached to a numerical scale with appropriate instructions for making a response. The recruitment action plan developed was then based on the Organizational and KSAO's derived from the Job Analysis using a structured questionnaire. Findings show that an effective direct linkage can be established between Knowledge, Skills, Abilities and Other Attributes derived as a result of job analysis and a performance management system and with a Recruitment Action Plan, causing a critical alignment leading to effective selection and recruitment decisions, promotion and performance decision as well as many other important Human Resource related decision based on objective job related criteria. The processes adopted in this research illustrate to Managers how an effective Recruitment system along with valid selection instruments can be developed based on an objective and a legally defensible job analysis demonstrating how systematic selection decisions can be made, including a better aligned performance management tool and a recruitment action plan based on approaches adopted in this research.

Key terms: *Functional Job Analysis, Knowledge, Skills, Abilities, Other Attributes, Recruitment Action Plan, Graphical Rating Scale, Task Inventory and Performance Management*

1. Introduction

US and Canadian guidelines on Employee Selection stipulate that job analysis is a crucial step in validating all personnel activities. The research conducted within a multinational organization in Canada demonstrates positive impact of key outcomes of a Job Analysis on key Recruitment and Selection processes and Performance Management as a result of the Knowledge, Skill, Abilities and Other Attributes (KSAO's) derived that are critical to the performance of a job. Similar processes can be replicated in any other organization around the world. The aim of the research is a perfect organization and job fit for a 'requisite' position within a private multinational organization by evaluating key KSAO's and right task, contextual and counter-productive behaviors required for a job. By doing three types of analysis - internal and external, organization and job analysis, including a realistic job preview, a job and organization fit can be ensured for a position and valid and reliable decisions can be made on recruiting and promoting the right candidate for a position. Cantano, Wiesner, Heckett, Methot, and Belcourt, 2010, p. 30 found that

“Employers are successful if they demonstrate evidence of criterion-related and content-related validity for these requirements achieved by conducting job analyses that can demonstrate these factors –example: the nature of the job, any advanced knowledge required for the job, or “performance that is linked to education requirements (criterion-related validity).”

A Person-Organization Fit was carried out Cantano et al., (2010, pp. 1-19) to assess potential

employees in terms of their fit with both the job and the organization and, it was concluded that it helps to ensure that the job candidate fits with the organization's values and culture and has the contextual attributes desired by the organization further enabled by an organizational analysis. A Person-Job Fit ascertained ensures the case when a job candidate has the Knowledge, Skills, Abilities, Or Competencies required by the position in question evaluated through a *job analysis*.

Internal and external factors both influence the recruitment strategy of an organization. An external assessment helps analyze the company's business plan, the job level and type. An internal assessment involves analyzing the recruitment strategy based on organizational goals and the job description evaluated through job analysis. Organizational and job analysis helps identify human resources required to implement the business plan, both through internal resources and KSAO's obtained through job analysis. The aim of the recruitment strategy and action plan is to eliminate gaps between the demand and supply of human resources. A tailor-made recruitment strategy based on the business plan, organization analysis and job analysis helps draft a Recruitment Action Plan. Correct recruitment Sources can be identified to attract external applicants such as Recruiting at Educational Institutions, Job Advertisements, Internet Recruiting and Employment Agencies etc. The target applicant pool can then be identified based on evaluation of these external and internal factors. Thus, based on the know-how about the job of a Customer Care Representative and the multinational organization; the position is an entry level, non-technical and a non-strategic job.

The research conducted is based on an accurate, detailed, thorough and thoughtful job analysis and the rest of the projects flow from it as follows:

1.1 The Job Position Based on a National Classification Code

The 'requisite' position chosen in the multinational company was of a Customer Care Representative and the job description (JD) taken was a standardized JD based on Canadian National Occupation Code (NOC) for job classification id 6553.

1.2 Job Analysis Based on the Functional Job Analysis Technique

Functional Job Analysis (FJA) was used as it is more structured, reliable, thorough and a more rigorous method. "Validation of FJA task data based on social-organizational validation strategies", (Cronshaw, Best, Zugec, Warner, Hysong & Pugh 2007, p. 12), helps in deriving Task Statements and creating a Task Inventory and rating Task Statements against the KSAO's and job related criteria. FJA also helps in determining "what tests can be administered to select or prompt", (Cronshaw et al., 2007, p. 12) enabling the employer to effectively recruit and screen applicants based on the KSAO's identified. A more detailed step-by-step process of the Job Analysis can be viewed in my earlier paper, (Kshatriya 2016, paras. 3.2-3.9).

1.3 Performance Appraisal Tool Developed Uses Graphical Rating Scale as a Valid and Reliable Predictor Tool

Based on critical criteria derived through job analysis key Task, Contextual and Counter Productive Behaviors are evaluated for building a Performance assessment tool. Job Analysis answers 'what tasks make up a job', which this research evaluates for using in the Performance Management / Appraisal tool. A performance appraisal tool is created based on the final 15 KSAO's derived on the basis of a rigorous and detailed Functional Job Analysis as shown in a preceding paper. The link is established between the final 15 KSAO's derived for a requisite position within a multinational company and the Performance Appraisal Tool developed using Graphical Rating Scales based on those criteria. A detailed step-by-step process of the Performance Appraisal Tool developed, can be viewed in my recent paper, (Kshatriya 2016, para.3.1).

1.4 Recruitment Action Plan

Based on the know-how about the job of Customer Care Representative and the organization, it is evaluated that the position is an entry level, non-technical and a non-strategic job. The candidate for this position can be recruited based on the following evaluation;

- The internal and external factors affecting the organization.
- An organization analysis based on those factors.

- The job analysis that will identify behaviors and characteristics for selecting qualified candidates for this position.

1.5 Scope and Limitations

The studied Job Analysis has a scope to help today's Managers in various ways;

- In developing a performance management tool aligned to the required KSAO's on the job. 'Job performance factors help design appraisal tools', (Nankervis, Compton, & Baird 2002, pp. 1-736).
- In developing Job Descriptions and Job Specifications. "The interviews show that job descriptions are considered important in the company', (Bodnarchuk 2012, p. 41).
- Job Analysis helps in recruitment, by assessing applicants to see whether there is a person-organization fit and ascertains if a candidate has the required KSAO's or competence.
- In screening application forms for the minimum qualification (MQ's), which are the required KSAO's for successful performance on the job.
- In conducting a standardized structured interview based on the KSAO's derived from Job Analysis.
- In developing an aligned behavioral description interview questionnaire that ensures that only candidates with job required KSAO's are selected.
- In testing to finalize job candidates who have the required KSAO's to successfully perform at the job.
- Finally, in decision-making where hiring decisions will be based on valid and reliable measurement of various KSAO's tested and derived using job analysis.

The case study approach of the research on job analysis can be seen as a limitation as it was conducted within one organization's multinational environment.

1.6 Significance of the Study

Job analysis is 'key to recruitment, selection, orientation, training, career development, counseling, health, safety, performance management and compensation' processes. Data gathered and analyzed through job analysis helps in designing job descriptions and job specification and is used in a variety of other HR related functions including preparing job classification, job evaluations, selection and recruitment, performance appraisal and training including incentive pay and compensation, improving work conditions, charting lines of responsibilities etc. The Performance Appraisal tool developed is based on the Absolute Rating System and uses the Graphical Rating Scale. The Absolute Rating System was chosen, as it is more valid and reliable as it compares employee performance with an absolute standard of performance.

1.7 Operational Definition of Terms in the Study

For better understanding of the terms used in this research, the followings are their operational and conceptual definitions;

Knowledge: A body of information that is distributive and procedural in nature, needed for the successful performance of a requisite job.

Skills: Level of competency or proficiency/atomicity as expressed in numerical terms for specific tasks.

Ability: A more general capability needed by employees at the beginning of tasks that includes their values and attitudes.

Other Attributes: Personality traits or other personal traits integral to performance of the job.

Task performance: Employee behaviors that are directly involved in the transformation of organizational resources into the goods or services that the organization produces. Task Behavior is an employee's response to a task-based environment in which this employee operates.

Contextual Performance: Elements of organizational citizenship behavior and pro-social organizational behavior. "Contextual performance incorporates key aspects of the constructs to describe a broad dimension of work performance distinct from core task activities." Griffin, Neal & Neal (2001, p. 518)

Counter Productive: An employee's behavior that goes against the legitimate interests of an

organization. Such behavior can harm organizations, employees, clients, and customers.

Structured Interview: Standardized Job Analysis Interview Questionnaire used to understand important tasks, knowledge, skills, abilities required, physical abilities, environmental conditions, typical working incidents, supervisory responsibilities, etc., and to objectively describe the critical components of the job.

Critical Statements: Statements that demonstrate actions performed by the incumbent in the job and includes the person, data or things affected by the actions, the intended outcome or product of action and the material, tools and procedures used in performing the action were formulated.

Task Statements: Incorporate 4 elements – a verb describing the action; an object of the verb; a description of tools, equipment, aids and processes used on the job; and the expected job output.

Task Inventory: Tabulation of all task statements in which, at least 75% employees are engaged.

Worker-Function Orientation: The extent of the worker's involvement with data, people and things.

Worker Instruction: The amount of control a worker has over the specific methods of task performance

Criterion Related Validity is an evidence of the

“correlation between a test and a criterion variable (or variables) taken as representative of the construct and compares the test with other measures or outcomes (the criteria) already held to be valid. For example, employee selection tests are often validated against measures of job performance (the criterion), and IQ tests are often validated against measures of academic performance (the criterion).” (Anastasi and Urbina 1997, p. 114).

Content Related Validity

“Is a non-statistical type of validity that involves the systematic examination of the test content to determine whether it covers a representative sample of the behavior domain to be measured.” (Anastasi et al., 1997, p. 114)

2. Review of Related Literature and Studies

“Job analysis is a fundamental organizational practice all over the world.” (Brannick and Levine 2007, p. 709). Job analysis is “the systematic process of discovery of the nature of a job by dividing it into smaller units.” (Morgeson & Campion 2007, p. 8). Competency with regards to job analysis is a list of tasks, duties, responsibilities, knowledge, skills, and abilities that a person must have in order to be sufficiently competent at a given position. Clifford (1994, pp. 321-340) concluded that an effective growth program for an organization couldn't be formed without performing a job analysis.

“Job analysis answers the questions of what tasks, performed in what manner, make up a job. Outputs of this analytical study include: (a) a list of the job tasks; (b) details of how each task is performed; (c) statements describing the responsibility, job knowledge, mental application, and dexterity, as well as accuracy required; and (d) a list of the equipment, materials, and supplies used to perform the job.” (Clifton 1989, p. 187).

Job analysis is a systematic procedure by which one describes the way a job is performed, the tasks that constitute a job, and/or the skills and abilities necessary to perform a job.

Bodnarchu (2012, pp. 2, 6-8, 13) and Singh (2009, para.1.0-1.2, 2.0) have highlighted the importance of JA in the changing work place environment. “Job Analysis is an important factor in designing performance appraisal tools,” (Nankervis et al., 2002, pp. 1-736) i.e. it guides indevelopment of different tools for different types of jobs. “Job Analysis also gives managers a legally defensible tool against pleas of discrimination against protected groups, when hiring and selection decisions including performance appraisal and other HR decisions” (Kshatriya 2016, p. 205). Bodnarchuk (2012, p. 1-70) concluded that through job analysis two important documents; Job Description and Job Specification are developed (which set the bases for Performance Management. “Performance may be defined as how glowing the job is being completed as per well-known standard operating procedures”, (Nankervis et al., 2002, pp. 1-736).

Olson, Fine, Myers, and Jennings (1981, pp. 351-364) expressed view in their research completed earlier for a large international craft union provided the opportunity for an empirical assessment of functional jobanalysis (FJA) as a method for developing job-related performance standards. A “strategic model for HRM clearly depicting the strategic association between Job Design

and Performance Management,” (Nankervis et al., 2002, pp. 1-736) “ has been presented as referenced by Zubair and Khan (2014, p. 53). “There is a positive link between JA and PM.” (Zubair et al., 2014, p. 57). “One of the central themes in the fields of Organizational Psychology is mapping the relationship between individual characteristics (e.g., skills, abilities, personality traits) and workplace behavior.”(Gruys & Sackett 2003, pp. 30-43).

Based on Clifton (1989, pp. 187–232) multi-factorial model of job performance, the Expatriate Performance Scales were developed “to measure components of expatriate performance”, (Lee & Donohue, 2012, p. 1197). These procedures resulted in 32 items measuring an amended model of expatriate performance with six components that included task performance (task), communication performance (contextual), demonstrating effort, maintaining personal discipline (counter-productive), team and leadership performance (contextual) and, management and administration performance (contextual). Hughes and Prien (1989, pp. 283-293) in their research stated that any one task could require a variety of skills at different levels for effective performance, while a single job skill can be a pre-requirement for performance, in several tasks.

It was concluded, “Recruitment is done to meet Management goals and objectives for the organization and must also meet current legal requirements - human rights, employment equity, labor law and other legislation” (Catano et al., 2010, p. 236). “A sustainable competitive advantage is achieved through people, starting with recruiting the best,” (Catano et al., 2010, p. 249). Furthermore, Kshatriya (2016, p. 205) concluded that

“Job Analysis gives managers a legally defensible tool against pleas of discrimination against protected groups, when hiring and selection decisions are made including performance appraisal and other HR decision related to pay increases, promotion, training etc., are based on job analysis.”

Another study showed how Organizational Behavior Management research and practice could incorporate tools from Job Analysis to achieve “an effective and socially valid organizational improvement strategy”, (Crowell, Hantula & McArthur 2011, pp. 316-332). Yet, other studies discussed that “the backbone of most human resource activities is job analysis”, (Byars & Rue 2006, pp. 83-114) which can serve a number of functions. Friedman and Harvey (1986, p. 779) found that

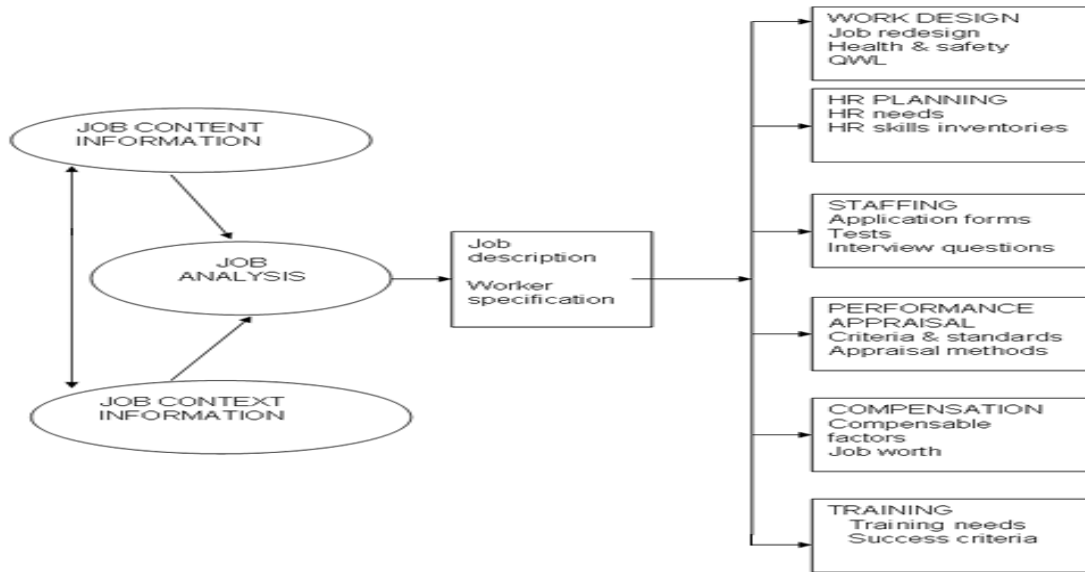
“Job analysis information is used in a variety of personnel functions (e.g., writing job descriptions, designing performance appraisal and selection tools, assessing training needs, classifying jobs, and administer in compensation systems).”

Job analysis is thus key to Recruitment, Selection, Orientation, Training, Career Development, Counseling, Health, Safety, Performance Management and Compensation. “JA plays a vital role in Human Resource Management and is a prerequisite for other core functions of HRM such as Selection, Training and Development, Compensation and Performance Management.”(Zubair et al., 2014, pp. 51)

However, “Job Analysis is done under the light of the overall organizational strategy which itself is derived from overall organizational objectives and goals”, (Zubair et al., 2014, p. 53). “Outputs of this analytical study include: (a) a list of the job tasks; (b) details of how each task is performed; (c) statements describing the responsibility, job knowledge, mental application, and dexterity, as well as accuracy required; and (d) a list of the equipment, materials, and supplies used to perform the job”, (Clifton 1989, p. 187). A study by Siddique (2004, p. 219) examined the impact of job analysis on organizational performance among 148 companies based in the United Arab Emirates (UAE). Survey results of that study indicated that a practice of proactive job analysis was strongly related to organizational performance. “Research has established the link between HR practices and organizational performance, suggesting that the HR system has great strategic potential to drive organizational effectiveness”, (Heneman, Milanowski, & Anthony 2011, p. 45). “A sustainable competitive advantage is achieved through people, starting with recruiting the best”. (Catano et al., 2010, p. 249). Organization and job analysis will help identify human resources required to implement the business plan, both through internal resources and KSAO’s obtained through recruitment. A Person-Organization Fit is carried out to “assess potential employees’ in terms of their fit with both the job and the organization to ensure that the job candidate fit’s with the organization’s values and culture and to have contextual attributes desired by the organization” and is ascertained to ensure “the case when a job candidate has the knowledge, skills, abilities, or competencies required by the job in question”, (Catano et al., 2010, p. 121).

2.1 Theoretical Framework of the Study

Centrality of Job Analysis,
Source: Ghorpade (1989, p. 6).



Job Analysis – Task Analysis

Source: Dr. Ducharme, York University, School of Administrative Studies (2012).

TASK CODE: 4.2						WORKER INSTRUCTIONS	GENERAL EDUCATIONAL DEVELOPMENT		
WORKER FUNCTION AND ORIENTATION							Reasoning	Math	Language
Things	%	Data	%	People	%				
<p>TASK: constantly stay in touch and keep professors informed of status of the project, and get clarification and redirection</p> <p>SME comments/rough notes on task statement formation:</p> <ul style="list-style-type: none"> -keeping in communication -contacting professor frequently or intermittently -managing, coordinating -take elements from customer service - following up, updating -moving the project along -project management -responsibility of following up and make thing easier for the project, and utilizing knowledge and expertise and their guiding and pushing it along and enabling you IOT to inform <p>verbs: emailing, phoning, meeting</p> <p>there are times where you are stuck in the mud, so it's not always linear, so it's not always that easy, so that's why IOT touch base is good to clarify and ask questions</p> <ul style="list-style-type: none"> -get direction and redirection <p>Task Statement:</p> <p>emailing, texting, calling Professor drawing on their knowledge of their schedule and working style IOT constantly stay in touch and keep professors informed of status of the project, and get clarification and redirection</p>									

Job Analysis – Measurement Problems and Applications
Source: World Health Organization,
Guidelines for Task Analysis and Job Design (2015, 1999, p. 53)

Task Analysis Scales

WORKER FUNCTIONS

Data	People	Things
3	2	1

GENERAL EDUCATION

Reasoning	Math	Language
3	2	1

Responsibility

Choice	Consequences of Human Error
3	2

2.2. Conceptual Framework of the Study

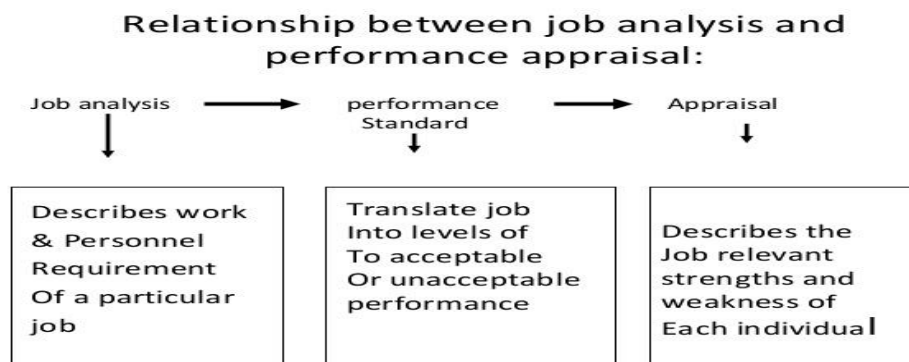
“Functional Job Analysis (FJA) analyzes jobs by studying tasks. The decision to do so was a practical one that developed out of job family research carried out in the late 1930s to establish transferability among jobs. What was found was that job titles were unrealistic, unstable, and ultimately inaccurate and non-descriptive. What was stable were tasks. The same tasks showed up repeatedly in different jobs, and essentially it was task elements that were the basis of job relationships.” (Olson, Fine, Myers, Jennings, & Margarett 1981, p. 351-364)

“Functional Job Analysis is

- a conceptual system which defines dimensions of work activity, eg, data, people and things and domains of human performance, ie, cognitive, affective, and psychomotor, and interrelates the two;
- an observational method and thus a way of looking at and recording people at work; and
- a method of analysis which relates all work output to the goals and objectives of the work organization and to the skills, knowledge and attitudes of the workers”. (Olson et al., 1981, pp. 351-364)

“Tasks are thus the fundamental units of job design, job performance, and job management”, (Olson et al., 1981, p. 351-364). Job performance has three dimensions: task performance, citizenship behavior / contextual performance, and counterproductive behavior. Performance is assessed by all behaviors demonstrated on the job aligned to the KSAO’s derived through the process of job analysis.

Relationship between Job Analysis and Performance Management
Source: Business Source (2015)



2.3 Research Synthesis

From an initial list of 37 KSAO's arrived at prior to the completion of the 'Task Statement and KSAO Matrix' evaluation, 15 significant KSAO's were derived after the matrix evaluation was completed that were further identified on the basis of tasks, context and counterproductive attributes. These final 15KSAO's were then used to develop a Performance Appraisal Tool for the requisite position of a Customer Care Representative using Graphical Rating Scales as a valid and reliable predictor based on the critical criteria of the final KSAO's derived through job analysis, to evaluate performance based on demonstration of these task, contextual and counter-productive behaviors.

The processinvolved initial identification of critical statements and analyses of task statements; compilation of a task inventory and getting that task inventory rated by multiple incumbents and SME's to arrive at a final list of task statements, which were based on 75% agreeability of all incumbents performing the job. This was done after the mean of the frequency, importance and difficulty of each task statement was rated by incumbents in the sample. Only 11 task statements were finally considered from initial 14 that had a mean of 3 and above on a 5-point scale. Key KSAO's were identified and analyzed based on their importance and proficiency. Finally, a task statement and KSAO matrix was drawn and evaluated for the number of positive indicators. Those components that received percentage weighting/ rankings and those which had a 50% and higher occurrence of each knowledge, skill, ability and other attribute within each task statement wasranked for significance.

Thus, of the total 37 KSAO components derived from the initial 14 task statements, only 15 final important KSAO's received a final percentage of weightage. These final 15 KSAO's were used as performance dimensions in the performance appraisal tool. This was done by evaluating 11 Task Statements using the KSAO Matrixes and by focusing on the KSAO's that met most tasks (derived by taking KSAO's averaging at 50% and above) in the matrix. Finally, these 15 KSAO's were given ranking. These final, weighted 15 significant KSAO's form the basis on which several other HR tool can be developed such as a Job Description, Job Specification, Behavioral Description Interview Questionnaire, Standard Structured Performance Evaluation, Decision Making Model etc., using KSAO's that have been arrived using the rigorous method of job analysis.

The recruitment strategy recommended was based on the business plan, organization analysis and job analysis and helped in understanding information and materials to be given to candidates.

3. Methodology

3.1 Research Design

Initially a functional job analysis was carried out for a requisite position based on National Classification Code of Canada, wherein a Standardized Job Analysis Interview Questionnaire was developed and implemented to assess important tasks, knowledge, skills, abilities required, physical abilities, environmental conditions, typical working incidents, supervisory responsibilities, etc., for a sample size of 9 customer service representatives and three Groups' subject matter area experts taken from within the multinational company. KSAO's were derived based on a detailed interview conducted.

A task statement bank sheet was used to evaluate the worker function orientation and percentage of data, things and people needed to perform the job. Identification of critical statement is an important pre-requisite for building task statements and subsequently for creating a task inventory. Task statements were created based on the identification of critical statements leading to the formation of a task inventory incorporating the following 4 elements – a verb describing the action; an object of the verb; a description of tools, equipment, aids and processes used on the job; and the expected job output, rated these tasks in order of its Frequency, Importance and Difficulty on a 5-point scale of 1-5.

Questions asked included knowledge of subject matter area covered by each task / major duties; environmental conditions of the job; assessing the worker-function orientation with regards to the facts and principles needed on the job; the worker instruction regarding the level, degree and breadth of knowledge required for the area; duration of each major task in terms of duration and periodicity; general education and reasoning, math and language abilities. Based on the evaluation of answers received from each of the samples, final task statements were derived to indicate tasks where at least 75% employees engaged in them. This task inventory was identified in terms of frequency,

Importance and Difficulty on a 5-point scale of 1-5. Creating a short-list of 14 task statements prior to the 75% rating done.

Then, 37 KSAO's were derived out of 14 task statements as a result of the analysis of the final task statements that included uncovering 11 knowledge areas, 9 skill areas, 12 ability areas and 5 other attribute components. However, in the final task inventory only final 11 task statements were taken, those with a mean of 3 and upwards on a 5-point scale. Each KSAO was then rated in order of importance on a 5-point scale of 1-5 and in order of proficiency on a 3-point scale of 1-3.

3.2 Sample and Sampling Design

The Customer Care job position is based on the National Classification Code of Canada and a sample of 9 customer service representatives and 3 Groups' subject matter area experts were taken from a multinational Canadian company following a simple random sampling. These were chosen from 3 different branches involved in retail and from contact centers. As per NOC code 6552, "Customer service representatives in retail establishments answer in person or on the phone, enquiries from customers and investigate complaints regarding the establishment's goods, services and policies; arrange for refunds, exchange and credit for returned merchandise; receive account payments; and receive credit and employment applications. Employment requirements of the job position include completion of secondary school; completion of some college or other post-secondary programs may be required, clerical or sales experience and a valid driving license".

3.3 Research Instruments and Techniques

The following research instruments were used: Standardized Job Analysis Interview Questionnaire, National Classification Code, Task Statement Bank Sheet and Task Inventory.

Table 1: Final Task Inventory

		Final Task Statements	Aver. Mean	Freq. Mean	Imp. Mean	Diff. Mean
T	1	Research about company on the internet to gather customer information	3	3.00	2.67	2.67
T	2	Contact customers to find out their potential for sales	3	1.67	2.67	3.33
T	3	Use a product list to inform customers about new product lines	3	3.33	2.67	2.00
T	4	Use IMS database to gather, update and record customer information	4	3.33	5.00	2.33
T	5	Prepare customized letters /packages for each interested customer	3	3.33	4.33	2.67
T	6	Disable uninterested customers from the database	3	3.33	4.00	2.00
T	7	Evaluate sales generated each month from the customer list	3	2.00	4.67	2.67
T	8	Report monthly to Manager on financial and performance outcomes	3	3.00	4.67	2.33
T	9	Record statistics pertaining to the customers as a result of action taken	3	3.33	4.67	2.33
T	10	Send emails to Customers and Managers to update on positive responses	4	5.00	4.67	2.00
T	11	Use laptop/computer to carry out the work of regenerating old customers	4	5.00	5.00	3.00

Technique used to arrive at the final KSAO's was an initial creation a Task Inventory shown

in Table 1 on the scale of Frequency, Importance and Difficulty, for calculating the mean. This was followed by evaluation of KSAO's needed for each task statement as shown under section 3.2.2. These KSAO's were further evaluated on a scale of importance and proficiency as shown in tables 2 to 5. Task * KSAO Matrices were created to understand the number of KSAO components occurring in each task, as shown in tables 6 to 9. Task Characterization was done using these matrices and only those KSAO's were finally regarded as being important for the completion of each task – those that present at least 50% of the times and more. These final KSAO's were listed in order of their percentage weighting / ranking and became job performance dimensions or behaviors used in the performance management tool that were further identified as task, contextual and counter-productive behaviors on the job, needed to be evaluated to demonstrate evidence of a person-job fit.

3.3.1 Final KSAO's Derived

The following KSAO's were derived from analyzing the above:

Knowledge

- K1. Knowledge of IMS Database Management
- K2. Knowledge of Research
- K3. Knowledge of English Language
- K4. Knowledge of Computers
- K5. Knowledge of Cold Calling
- K6. Knowledge of Creative Writing
- K7. Knowledge of Products
- K8. Knowledge of Using Computer Hardware
- K9. Knowledge of Branch Locations
- K10. Knowledge of Advanced Computer Skills (Excel, Graphs, Charts)
- K11. Knowledge of Math / Statistics (Statistical Averages, Means etc)

Skills

- S1. Skill in Operating IMS Database
- S2. Skill in Internet Browsing
- S3. Skill in Written Communication
- S4. Skill in Verbal Communication
- S5. Skill in using Microsoft Word, Excel and Outlook
- S6. Skill in Writing Letters
- S7. Skill in making Promotional Packages
- S8. Skill in making Charts and Graphs
- S9. Skill in Mathematical Calculations

Abilities

- A1. Ability to Understand and Follow Verbal and Written Instructions
- A2. Ability to make Judgment
- A3. Ability to work Concurrently
- A4. Interpersonal Ability
- A5. Ability for Self-Management
- A6. Ability to do Simple Mathematical Calculations
- A7. Ability to Problem Solve
- A8. Ability to Multitask
- A9. Ability to work in a cramped Environment and Space
- A10. Ability to lift 15 kg weight
- A11. Ability to deal with new People and Situations
- A12. Ability to Make Decisions

Other Attributes

- O1. Attribute of Emotional Intelligence
- O2. Attribute of Mental Endurance
- O3. Attribute of Resilience
- O4. Attribute of Honesty
- O5. Attribute of Empathy

Kshatriya, (2016, pp. 207-223) provides a detailed step-by-step process of the Functional Job Analysis conducted.

3.3.2 Performance Management Tool Developed with its Link to KSAO's

The KSAO's were further differentiated on the basis of Tasks, Context and Counter-productive behavioral components. A Performance Appraisal tool is developed based on an Absolute Rating System using a Graphical Rating Scale. An Absolute Rating System is chosen, as it is more valid and reliable. This compares employee performance with an absolute standard of performance. Performance is first assessed for each of the Performance Dimensions as identified in the final 15 KSAO's and derived from those, which are critical for the performance of the job selected. A rating scale is subsequently developed for each of the dimension that is to be evaluated. The Graphical Rating Scale was selected as it is valid, reliable and practical and meets the current resources. Furthermore, since the job is a requisite job and not a strategic job, using Graphical Rating Scales serves the objective of performance appraisal. The anchors (poor, average, excellent) developed provide sufficient guidance to raters and help ensure consistency in rating even without detailed behavioral descriptions of what is meant by "average" or "excellent"; since the job dimensions are fairly straightforward and simple and the job is not a very complex one. However, if the job was a strategic one then a more complex procedure of Behaviorally Anchored Rating Scales would have had to be chosen to help raters understand subtle differences in the scales.

3.3.3 KSAO's used in the Performance Management (PM) Tool

8 Task Behaviors, 6 Contextual Behaviors and 1 Counter Productive / Preventive Behavior were used for developing the PM tool. In all, 15 key behaviors were aligned to the 15 final KSAO's derived from the process of the job analysis conducted. The Tasks Behaviors included 1 Knowledge, 4 Abilities and 3 Skill components. The Contextual Behaviors included 1 Knowledge, 4 Abilities and 1 Attribute components. The Counter Productive or Preventive Behavior included 1 Attribute component. Thus in all, 2 Knowledge Behaviors, 8 Ability Behaviors, 3 Skill Behaviors and 2 Attribute Behaviors were used to develop the PM tool in the order of their % weight distribution to reflect priority and periodicity of usage in their job performance, as follows:

<u>KSAO's</u>	<u>% Weights Behaviors</u>
<u>Task Behaviors Used</u>	
1. Ability to make Judgment	- 92% - Task
2. Ability to Multitask	- 92% - Task
3. Ability to work in a cramped Environment and Space	- 83% - Task
4. Ability to Make Decisions	- 83% - Task
5. Knowledge of Computers	- 73% - Task
6. Skill in Written Communication	- 58% - Task
7. Skill in using Microsoft Word, Excel and Outlook	- 58% - Task
8. Skill in Verbal Communication	- 50% - Task
<u>Context Behaviors Used</u>	
1. Ability to work Concurrently	- 92% - Context
2. Ability for Self-Management	- 92% - Context
3. Attribute of Emotional Intelligence	- 92% - Context
4. Knowledge of English Language	- 73% - Context
5. Interpersonal Ability	- 50% - Context
6. Ability to deal with new People and Situations	- 50% - Context
<u>Preventive Behaviors Used</u>	
1. Attribute of Honesty	- 67% -Counter-Productive

3.3.4 The PA method developed

Graphical Rating Scales were produced for each of the 15 job dimensions – the KSAO's. The scale consisted of the name of the job dimension, a brief definition of the dimension, 5-point scale with equal intervals. The Graphic Rating Scales had a 5-point scale and verbal anchors Poor (point-1),

Below Average, Average, Above Average and Excellent (point 5). Job Performance Dimensions were aligned to the final 15 KSAO's and explained in terms of what each dimension meant in the context of the job, with their definitions given in the PM tool developed for dimensions such as 'Judgment, Work Concurrently, Self-Management, Multitask, Emotional Intelligence, Working in a Cramped Space, Decision Making, English Language, Computers, Honesty, Written Communication, Microsoft Office Applications, Verbal Communication, Interpersonal, New People and Situations' Instruction on how to make a response followed each definition of the job dimension, e.g.: 'Circle the number that best reflects the employee's ability to deal with new people and situations on the job'. Kshatriya (2016, pp. 206-215) gives a detailed step-by-step process of the Performance Appraisal Tool developed based on job analysis.

3.3.5 Recruitment and Staffing Action Plan Based on Job Analysis

This comprised on the following two steps:

1. Developing a recruitment strategy which involved -
 - Reviewing job description for the position based on job analysis completed.
 - Developing a selection criterion based on KSAO's identified.
2. Developing a recruitment strategy which involved -
 - Reviewing the labor market.
 - Considering employment equity issues.
 - Determining if recruitment will be internal or external.

3.3.6 Strategy Based on Organization and Job

Internal and external factors influence the recruitment strategy. The aim of the recruitment strategy and action plan is to eliminate gaps between the demand and supply of human resources. The recruitment strategy comprises of external recruitment, organization analysis and job analysis, to find the right person for the job.

Answering the following questions did an assessment of:

- The Internal and External Factors

Que.1) Based on the labor market, is there an available supply of qualified external candidates?

Ans.1) Plenty of school and college graduates are available in the labor market

Que.2) Based on the labor market, how extensive should the search be?

Ans.2) Mainly to target schools and colleges

Que.3) Based on legal considerations, what are the goals with respect to employment equity?

Ans.3) Consider all designated groups and diversity of applicant pool

Que.4) Based on the business plan, how many positions are required to be staffed?

Ans.4) 1 Customer Care Representative Position

- Organization Analysis

Que.1) Based on the organization analysis, what KSAO must the job candidate possess to do the job?

Ans.1) Organization analysis will involve looking at the mission, vision and strategic goals and objectives, external and internal analysis.

Que.2) Based on organization analysis, what % of the positions can or should be staffed with internal candidates?

Ans.2) 0% as this is an entry level position and has to be filled mainly through external candidates.

- Job Analysis

Que.1) Based on job analysis, what is the nature of the position that must be filled?

Ans.1) This position requires someone with the following Knowledge, Skills, Abilities and Other Attributes, based on the Job Analysis conducted;

Knowledge

1. Knowledge of English Language
2. Knowledge of Computers

Skills

3. Skill in Written Communication
4. Skill in using Microsoft Word, Excel and Outlook
5. Skill in Verbal Communication

Abilities

6. Ability to make Judgment
7. Ability to work Concurrently
8. Ability for Self-Management
9. Ability to Multitask
10. Ability to work in a cramped Environment and Space
11. Ability to Make Decisions
12. Interpersonal Ability
13. Ability to deal with new People and Situations

Other Attributes

14. Attribute of Emotional Intelligence
15. Attribute of Honesty

3.3.7 Explaining and Rationalizing the Approach for the Recruitment Method Used

The target applicant pool that was identified: consists of School and College graduates located within the Greater Toronto Area (GTA), based on the evaluation of External and Internal Factors. The most appropriate recruitment method(s) for reaching all members of the external target applicant pool, including members of protected groups, will be External Recruitment Sources. Recruitment Sources- External: Sources that can be used to attract external applicants are as follows;

- Recruiting at Educational Institutions- This can be the first option. Community colleges and universities within GTA will be a common source of recruits for the entry-level SSP position. Campus recruiting will be made use of to gather graduates into the applicant pool.
- Job Advertisements - Special recruiting events such as job fairs will help bring potential job candidates into contact with the organization. Employee referral or word-of-mouth advertising can also be used wherever possible.
- Internet Recruiting – The internet and company's website can be used for matching candidates to jobs since this allows limitless talent pool to be tapped at minimal cost and beyond set geographic location. However, this can be a last option since internet recruiting is better suited for managerial/professional jobs; the SSP position being only an entry level one.
- Employment Agencies- Service Canada Centers can be considered for free access to their online job bank. Private employment agencies and temporary help agencies may be contacted if right candidates cannot be found through other sources or if the applicant pool is not big enough, but only as a final resort.

4. Findings of the Study

4.1 Initial 37 KSAO's Derived from the Task Statements

The following scales were used

- *Scale of Importance:* 0-None; 1-Little; 2-Some; 3-Moderate; 4-Very; 5-Extremely
- *Scale of Proficiency:* 0-Not needed; 1-Needed upon entry to job; 2-Can be learnt through training; 3-Needed at end of training

Table 2: Final Knowledge Components

		Knowledge	Importance	Proficiency
K	1	Knowledge of Database Management	5	2
K	2	Knowledge of Research	3	2
K	3	Knowledge of English Language	5	1
K	4	Knowledge of Computers	4	1
K	5	Knowledge of Cold Calling	5	2
K	6	Knowledge of Creative Writing	3	2
K	7	Knowledge of Products	2	2
K	8	Knowledge of Using Computer Hardware	2	2
K	9	Knowledge of Branch Locations	4	2
K	10	Knowledge of Advanced Computer Skills (Excel, Graphs)	5	2
K	11	Knowledge of Math / Statistics (Statistical Averages, Means)	5	2

As presented in Table 2, the Knowledge components were determined in terms of the importance and proficiency scales as assigned.

Table 3: Final Skill Components

		Skills	Importance	Proficiency
S	1	Skill in Operating IMS Database	5	2
S	2	Skill in Internet Browsing	3	1
S	3	Skill in Written Communication	3	1
S	4	Skill in Verbal Communication	4	1
S	5	Skill in using Microsoft Word, Excel and Outlook	4	1
S	6	Skill in Writing Letters	3	2
S	7	Skill in making Promotional Packages	5	2
S	8	Skill in making Charts and Graphs	4	2
S	9	Skill in Mathematical Calculations	4	2

As presented in Table 3, the Skill components were determined in terms of the importance and proficiency scales as assigned.

Table 4: Final Ability Components

		Abilities	Importance	Proficiency
A	1	Ability to Understand and Follow Verbal and Written Instructions	5	1
A	2	Ability to make Judgment	5	1
A	3	Ability to Work Concurrently	4	1
A	4	Interpersonal Ability	5	1
A	5	Ability to Self-Manage	5	1
A	6	Ability to do Simple Mathematical Calculations	3	1
A	7	Ability to Problem Solve	4	2
A	8	Ability to Multitask	4	1
A	9	Ability to work in a cramped Environment and Space sometimes	3	1
A	10	Ability to lift 15 kg weight	2	2
A	11	Ability to deal with New People and Situations	5	1
A	12	Ability to Make Decision	5	1

As presented in Table 4, the ability components were determined in terms of the importance and proficiency scales as assigned.

Table 5: Final Other Attribute Components

		Other Attributes:	Importance	Proficiency
O	1	Emotional Intelligence	5	1
O	2	Mental Endurance	3	1
O	3	Resilience	4	1
O	4	Honesty	4	1
O	5	Empathy	5	1

As presented in Table 5, the Other Attributes were determined in terms of the importance and proficiency scales as assigned.

4.2 Final KSAO’s Derived Using the Task Statements by KSAO Matrix Evaluation tool

The last step finally integrated the information by compiling a Task * KSAO matrix as shown below. Each cell in the matrix states whether the KSAO applies to a task (Yes = Y) or not (No = N). Matrixes below show the result of 37 KSAO evaluated after taking only the 75% rated 11 final task statements.

Table 6: Task Statement by Knowledge Matrix

		K N O W L E D G E										
		K	K	K	K	K	K	K	K	K	K	K
	TS	1	2	3	4	5	6	7	8	9	10	11
T	1	Y	Y	Y	Y	Y	N	N	N	N	N	N
T	2	N	N	Y	N	Y	N	Y	N	Y	N	N
T	3	N	N	Y	N	N	N	Y	N	Y	N	N
T	4	Y	N	Y	Y	N	N	Y	N	Y	N	N
T	5	N	N	Y	Y	N	Y	Y	N	Y	N	N
T	6	Y	N	N	N	N	N	N	N	N	N	N
T	7	Y	N	N	Y	N	N	N	N	N	Y	Y
T	8	N	N	Y	Y	N	Y	N	N	N	Y	Y
T	9	Y	Y	Y	Y	N	N	N	N	N	Y	Y
T	10	N	N	Y	Y	N	Y	Y	N	N	N	N
T	11	N	N	N	Y	N	N	N	Y	N	N	N
		5	2	8	8	2	3	5	1	4	3	3
		45	18	73	73	18	27	42	8	33	25	25
Wt.				8	9							

As presented in Table 6 matrix shows the result of 11 Knowledge components evaluated after taking only the 75% rated 11 final task statements.

Table 7: Task Statement by Skill Matrix

		S K I L L S								
		S	S	S	S	S	S	S	S	S
	TS	1	2	3	4	5	6	7	8	9
T	1	Y	Y	Y	Y	Y	N	N	N	N
T	2	N	N	N	Y	N	N	N	N	N
T	3	N	N	N	Y	N	N	N	N	N
T	4	Y	N	Y	N	N	N	N	N	N
T	5	N	N	Y	N	Y	Y	Y	N	N
T	6	Y	N	N	N	N	N	N	N	N
T	7	Y	N	Y	N	Y	N	N	Y	Y
T	8	N	N	Y	Y	Y	Y	N	Y	Y
T	9	Y	N	Y	Y	Y	N	N	Y	Y
T	10	N	N	Y	Y	Y	Y	N	N	N
T	11	N	N	N	N	Y	N	N	N	N
		5	1	7	6	7	3	1	3	3
		42	8	58	50	58	25	8	25	25
Wt.				11	13	12				

As presented in Table 7 matrix shows the result of 9 Skill components evaluated after taking only the 75% rated 11 final task statements.

Table 8: Task Statement by Ability Matrix

		A B I L I T I E S											
		A	A	A	A	A	A	A	A	A	A	A	A
	TS	1	2	3	4	5	6	7	8	9	10	11	12
T	1	Y	Y	Y	Y	Y	N	N	Y	Y	N	Y	Y
T	2	N	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y
T	3	Y	Y	Y	Y	Y	N	N	Y	Y	N	Y	Y
T	4	Y	Y	Y	N	Y	N	N	Y	Y	N	N	Y
T	5	N	Y	Y	N	Y	N	N	Y	Y	N	Y	Y
T	6	N	Y	Y	N	Y	N	N	Y	Y	N	Y	N
T	7	N	Y	Y	N	Y	Y	N	Y	Y	N	N	Y
T	8	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y
T	9	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y
T	10	N	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y
T	11	Y	Y	Y	N	Y	N	Y	Y	Y	N	N	Y
		4	11	11	6	11	3	5	11	10	0	6	10
		33	92	92	50	92	25	42	92	83	0	50	83
Wt.			1	2	14	3			4	6		15	7

As presented in Table 8 matrix shows the result of 12 Ability components evaluated after taking only the 75% rated 11 final task statements.

Table 9: Task Statement by Other Attribute Matrix

		O T H E R				
		O	O	O	O	O
	TS	1	2	3	4	5
T	1	Y	Y	Y	N	N
T	2	Y	Y	N	Y	Y
T	3	Y	N	N	Y	N
T	4	Y	N	Y	Y	N
T	5	Y	N	N	Y	Y
T	6	Y	N	N	N	N
T	7	Y	Y	Y	Y	N
T	8	Y	N	N	Y	N
T	9	Y	Y	Y	Y	N
T	10	Y	N	N	Y	Y
T	11	Y	N	N	N	N
		11	4	4	8	3
		92	33	33	67	25
	Wt.	5			10	

As presented in Table 9 matrix shows the result of 5 Other Attribute components evaluated after taking only the 75% rated 11 final task statements.

4.3 The Final KSAO's and Job Performance Dimensions

Table 10: Performance Dimensions showing Task, Context and Counter-Productive indicators

Rank	KSAO's	% Weights
1	Ability to make Judgment	92 % (Task)
2	Ability to work Concurrently	92% (Context)
3	Ability for Self-Management	92% (Context)
4	Ability to Multitask	92% (Task & Context)
5	Attribute of Emotional Intelligence	92% (Context)
6	Ability to work in a cramped Environment & Space	83% (Task)
7	Ability to Make Decisions	83% (Task)
8	Knowledge of English Language	73% (Context)
9	Knowledge of Computers	73% (Task)
10	Attribute of Honesty	67% (Counter-productive (preventing))
11	Skill in Written Communication	58% (Task)
12	Skill in using Microsoft Word, Excel and Outlook	58% (Task)
13	Skill in Verbal Communication	50% (Task & Context)
14	Interpersonal Ability	50% (Context)
15	Ability to deal with new People and Situations	50% (Context)

As presented in Table 10 the 15 final KSAO's are shown in their order of weighting / ranking, which were further differentiated on the basis of Tasks, Context and Counterproductive behavior indicators.

4.4 Snapshot of the Performance Management Tool Developed Based on Final KSAO's

According to Bartram (2004, pp. 237-259) and Schippmann, Ash, Battista, Carr, Eyde and Hesketh, (2000, pp. 703-740) Competency Modeling is typically defined as the identification, definition, and measurement of the KSAOs that are needed to perform successfully on the job. Below is a sample of the PM Tool that is developed that includes all of the below as explained:

- Name of the job dimension
- A brief definition of the dimension
- A 5-point scale with equal intervals, placed on the scale from 1-5
- Verbal labels / anchors of - Poor, Below Average, Average, Above Average and Excellent attached to numerical scale, and
- Instruction for making a response.

A snapshot with just the first 5 dimensions is shown as follows;

Figure 1: Performance Appraisal Tool

- JUDGMENT** - This job requires making judgment on potential of customers, disabling non-potential customers from the database, forwarding relevant customer information to the Branch for follow up etc. Consider the employee's ability to do this. Circle the number that best reflects the employee's ability to use his/her judgment on the job.

1	2	3	4	5
Poor	Below	Average	Above	Excellent
Average		Average		

- WORK CONCURRENTLY** – This job requires working on different job aspects at the same time - speaking to customers on phone, recording information given, reading from a product list, giving information to customers, answering queries etc. Consider the employee's ability to do this. Circle the number that best reflects the employee's ability to work concurrently on the job.

1	2	3	4	5
Poor	Below	Average	Above	Excellent
Average		Average		

- SELF-MANAGEMENT** – This job requires one to self-manage while making calls, speaking to customers, updating the database and disabling customers, etc. Consider the employee's ability to do this. Circle the number that best reflects the employee's ability to self-manage on the job.

1	2	3	4	5
Poor	Below	Average	Above	Excellent
Average		Average		

- MULTITASK** – This job requires multitasking to prepare promotional packages, talk to customers, prepare reports, compile statistics, monitor sales records etc. Consider the employee's ability to do this. Circle the number that best reflects the employee's ability to multitask on the job.

1	2	3	4	5
Poor	Below	Average	Above	Excellent
Average		Average		

5. **EMOTIONAL INTELLIGENCE** – This job requires using emotional intelligence while talking to customers, dealing with Branches and employees. Consider the employee’s attributes for this. Circle the number that best reflects the employee’s attribute of emotional intelligence on the job.

1	2	3	4	5
Poor	Below	Average	Above	Excellent
Average		Average		

4.5. Limitations of Using this Tool

Although there is a limitation in using the Graphical Rating Scale, of raters using other interpretations of job dimensions in giving ratings; however, at least raters have to consider the standardized definition provided. The anchors provide benchmarks to help raters understand differences between degrees of various job dimensions; however, different raters may still have a different understanding of what constitutes “average” behavior.

4.6 The Recruitment Strategy

The recruitment strategy evaluated the various External and Internal Factors such as:

External Factors

- The Labor Market
 - The position is an entry-level position.
 - The qualifications required are - completion of secondary school and some college programs with clerical or sales experience.
 - As this is an entry-level position, the qualified labor is not scarce.
 - The organization need not look for recruiting beyond its normal target population – that of new school and college graduates within the Greater Toronto Area.
 - Target population will be school and college graduates.
 - Part-time labor markets will also be considered for this position to help employing low-wage, entry-level workers on a part-time basis.
 - This job can also serve as a training ground for more permanent positions.
 - Outsourcing may also be considered as temporary workers can be used on a short-term basis for this position.
- The Legal Environment
 - Employment equity and pay equity legislation are considered.
 - Systemic discrimination is carefully minimized.
 - Good-faith recruitment efforts to make use of several communication channels to inform different potential audiences.

Internal Factors

- Business Plan
 - The organization’s mission statement, its strengths and weaknesses and its goals and objectives understood and evaluated to bring about a close alignment of the recruitment strategy with the overall organization strategy.
 - To understand the extent to which the organization can fill vacancies with internal and external applicants.
 - Based on the assessment, external candidates will be the focus for the position, as this is an entry level job
- Job Level and Type
 - The Occupation is Wholesale Distribution
 - The Industry is Electrical Industry
- Recruiting Strategy and Organizational Goals
 - The recruiting efforts to focus on external candidates as this is an entry level position
- Describing the Job

- Job description based on job analysis.

5. Conclusions

The identification of final 15 KSAO helped in creating the following;

- A Performance Appraisal Tool developed for the same position using Graphical Rating Scale as a valid and reliable predictor based on critical criteria derived through the above job analysis to evaluate Task, Contextual and Counter Productive Behaviors.
- A well planned and strategically aligned performance management tool that can help the Human Resource Department of any organization to design a well structural performance management system including performance assessment, evaluation and decision-making.
- The final 15 KSAO's identified through the process of job analysis that have been used to develop the performance management tool, can form the basis for the selection for promotion criteria. Candidates who fall short of the criteria required may be rejected.
- The extensive exercise of identifying the KSAO's based on major task assessment and then developing a PM tool aligned to that for a particular job can help managers evaluate employees fairly in an unbiased manner leading to effective promotion decisions related to an employee that has strategic value for an organization.
- A Recruitment Action Plan developed on the basis of Internal and External Analysis, Organization Analysis and Job Analysis.

6. Recommendations

6.1 Screening of Job Applicants Must Consider Minimum Qualifications:

KSAO's identified by job analysis can help further in developing screening methods that will be shown in a subsequent paper. Sanchez and Levine(2007, pp. 53-63) even suggested the term job analysis be replaced with the more appropriate term 'work' analysis to address criticisms of the process. According to them, "knowledge and skills that can be easily taught and that are very specific to the job are knowledge and skills that should be included in training, while more stable individual characteristics such as mechanical and cognitive abilities should be the basis for screening applicants". Minimum Qualifications based on KSAO's identified by job analysis would help in screening of job applicants' using various screening methods.

6.2 Employment Testing Method

KSAO's can be tested and cognitive and non-cognitive testing methods can be developed giving justifications for each test.

6.3. Interview Tool Developed Uses Behavioral Description Interview Technique

A behavioral description complete with Probes and Scoring Guides can be developed based on KSAO's identified. "Task statements might be generated for a job, or set of points considered when interviewing incumbents, because different situations do in fact call for different job analysis approaches" (Brannick & Levine, 2007, p. 802). An Interview tool is being developed for the same position using a Behavioral Description Interview technique based on the KSAO's identified.

6.4 Decisions-Making Using a Multiple Hurdle Model and Top-Down Approach

A model of decision making can be developed, which combines scoring data from all predictors for making the final decision on selecting the right candidate for a position, concluding the entire series of this research based on job analysis.

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