

## **New Horizons in the Field of Management Audit: As a Tool for Improving the Overall Management of Enterprises**

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**Abstract:** The field of management audit is increasing rapidly to assess the performance of management. Recently few firms have attempted to measure and assess the new intangible knowledge. Intellectual capital audit is used to monitor and oversee the intellectual capital of a firm. In our country some organizations conduct this audit with an unstructured form. Safety audit and Span of control audit are also two new horizons in the field of management audit. Safety audit is a proactive process by which an organization is able to continually evaluate and monitor the progress of its safety and health programs and the risk associated with them. The safety audit is conducted in our country but the recently occurred factory fires and collapse of factory buildings evidenced its condition as well as its significance. Workers' lives continue to be at risk. Span of control audit assess the organizational structures whether it is appropriate to ensure proper control. Though it is important to ensure control throughout the organization but it is still not incorporated in our organizations. This paper tries to give a brief scenario of these three concepts of management audit and also practicing condition in Bangladesh.

**Keywords:** Intellectual Capital Audit, Safety Audit, Span of Control Audit, Bangladesh Perspective.

### **1. Introduction**

Management audits, which are generally performed internally, are compliance audits plus cause-and-effect analysis. It is a tool for the evaluation of methods and performance in all the areas of the enterprise. The object of management audit is to reveal defects or irregularities in any of the elements examined by the management auditor and to indicate what improvements are possible to obtain the best results of the operations of the concern (Tandon, Sudharsanam, Sundharabahu 2002, 459). Various aspects in an organization are taken into consideration to assess their strengths and weaknesses through the process of management audit. Recent development in the management audit takes into consideration some important areas of an organization to assess the organization's span of management control, health and safety programs and intellectual capital.

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Intellectual capital audit is used in a wider context than a financial audit. Its purpose is to monitor and oversee the intellectual capital of a firm. Span of control audit assesses the organizational structures whether it is appropriate to ensure proper control where span of control refers to how many people a manager or supervisor can control while maintaining productivity and discipline (Comptroller General of the United States, Government Auditing Standards). Organizational structure is important because it affects communication, decision making, flexibility, and employee morale and resource allocation. Span of control may provide advantages such as cost savings, improved communication, and faster decision-making. On the other hand a safety audit is a proactive process by which an organization is able to continually evaluate and monitor the progress of its safety and health programs.

In Bangladesh, the history of management audit is not so prolonged. Intellectual capital audit, safety audit and span of control audit can be effective tools for improving overall management of the enterprises. Recently few firms in Australia have attempted to measure and assess the new intangible knowledge (Guthrie and Petty 2000 (a)). Span of control audit is another concept of newly developed management audit to improve management performance throughout their activities. As a result organizational structure can be an effective tool to ensure proper control and reduce cost. This paper tries to portray the concept of these three new horizons in the field of management audit and also to give a brief scenario of their practicing condition in our country.

## **2. Objectives of the study**

Recent development in the management consultancy takes into consideration to assess the organization's span of management control, health and safety programs and intellectual capital. This study covers the following specific objectives:

- To portray the concept of intellectual capital and intellectual capital audit and its objectives,
- To identify the importance of an audit on intellectual capital.
- To portray the concept of span of control as a tool of performance management audit and identify its significance.
- To portray about safety audit and its objectives.
- To give a brief scenario of these three concepts of management audit in Bangladesh perspective.

### **3. Methodology**

This paper is based on existing literature on this issue and on primary data collected from an empirical opinion survey which is conducted with an unstructured questionnaire to get information about the practicing condition in Bangladesh. In conducting empirical opinion survey personal interview method is used (face to face interaction with different organizational personnel, personally consulted with chartered accountants).

### **4. Intellectual capital audit**

The framework to audit intellectual capital has emerged from a number of research works in intellectual capital. The argument is based on that both financial and non-financial data on intellectual capital which need to be consistently gathered using a cohesive framework (Abeysekera, I. 2001).

Intellectual capital audit is used in a wider context than a financial audit. Its purpose is to monitor and oversee the intellectual capital of a firm (Brooking, 1996, 86). An intellectual capital audit requires a team comprising different experts like corporate strategists, finance experts, human resource experts, knowledge analysts, intellectual property experts and marketing experts (Brooking 1996, 93-95; Brooking and Motta 1996).

It is important to carry out an audit of intellectual capital items for the following reasons (Brooking 1996, 83-85). Firstly, it is a rich source of data that helps fill the gaps in the strategy to make it successful. Secondly, it helps evaluate and design R&D programs. Thirdly, it provides knowledge in re-engineering a firm to retain valuable capability and know-how. Fourthly, it helps plan education and training programs mutually beneficial to the employees and organization. Fifthly, it provides information on assets not recorded in traditional accounting to ascertain the value of the enterprise (Davepodrt and Prusak 1998, 85).

#### **4.1. Types of intellectual capital audit**

There are two major types of audits. One is to audit either individual or a spectrum of audit items, and the other is to audit by core competencies.

##### **(a) Auditing individual or a spectrum of items:**

This approach involves auditing individual or a spectrum of items. Some authors have attempted to assign a monetary value to individual intellectual capital items. The monetary measurement methods are suggested on several intellectual capital items. The

measurement method can be market approach, replacement cost approach, or income approach (based on income producing capability of the asset) (Brooking1996, 181-182).

To assess the financial value, many companies assign a portion of market capitalization as a proxy of their intellectual property as an alternative to individual patent measurement. Another method is to use knowledge scorecard. Knowledge scorecard is the capitalized difference (net present value) between annual normalized earnings and earnings from financial and physical assets (Rivette and Kline2000). A primary consideration in the valuation is the strength of protection (Brooking1996, 183).

**(b) Auditing by core competencies:**

Auditing by core competencies is another way to audit intangible assets (Andriessen, Frijlink, van Gisbergen and Blom 1999).

First, core competence is a combination of intangible assets such as knowledge and skills, standards and values, explicit know-how and technology, management processes and assets, and endowments such as image, relationships, and networks. Knowledge creation is the core competence of any firm and then intangible assets are defined in relation to core competencies of the firm (Malhotra 2000).

Secondly, the strength of each core competence is estimated with the aid of a checklist using five criteria which are customer benefit, better than competition, future potential, difficult to imitate, and solidly embedded. The checklist provides a score from 0-5.

Thirdly, the value of each core competence is determined in relation to five value drivers, namely, added value, competitive advantage, potential, sustainability and robustness.

Fourthly is to monitor them. Once the value of intangible assets is determined for a number of years they can be converted to an index and changes can be explained in qualitative terms. This method of auditing core competencies has certain limitations. The management time and commitment is a pre-condition. The firm should have a clear strategy to increase the value of intangibles. (Andriessen, Frijlink, van Gisbergen, and Blom1999).

Intellectual Asset Managers through their Intellectual Asset Management Teams are responsible at least once a year to identify key intellectual assets, classify them by utilisation, manage portfolio costs, and where appropriate do a competitive technology and portfolio assessment, and create and staff intellectual assets team and facilitate meetings. Further, they provide leadership and support to the intellectual asset management vision and process implementation, and recommend for licensing, abandonment, donation and utilization of intellectual assets (Petrash1996).

#### **4.2. Research methods used in intellectual capital audit**

There are several methods to carry out an internal intellectual capital audit. Different research methods may be more suitable for different intellectual capital items.

- Intellectual property assets are audited using surveys on market pull and know-how, analysis of payments and competitors, return on investments, and auditing agreements.
- Infrastructure assets are audited using interviews, return on investments, and assessing standards.
- Market assets are evaluated using market research, survey, customer interviews, sales and payment analysis, competitive analysis, return on investment.
- Human centred assets are audited using interviews, tests and assessments, reviews, knowledge elicitation and review of records (Brooking 1996, 97-129; Brooking and Motta 1996).

An external intellectual capital audit can be carried out using interview, surveys, content analysis, focus groups and case studies are the most popular method (Petty and Guthrie 2000 (b)). Interviews and questionnaires are used to supplement each other and used usually for larger sample sizes (Petty & Guthrie 2000 (b)).

#### **5. The safety audit**

A safety audit is a proactive process by which an organization is able to continually evaluate and monitor the progress of its safety and health programs. Audits are designed to rate an organization's total safety and health program, identify its strengths and weakness, show where improvements are needed, and obtain commitment and target dates for correcting problems. In addition to assessing safety violations and work conditions, an audit assesses senior management's philosophy and attitude towards safety. It also serves as a visible process that management can execute to demonstrate to employees that they are interested in their safety. It is also a morale builder. Employee involvement and self-interest provide positive contributions to the audit process and to the overall organization.

The primary objectives of a safety audit include: a. Confirming that safety, health, fire, and/or environmental program activities and controls are in place and functioning; b. Verifying that the facility is in compliance with internal benchmarks, consensus standards, and/or government regulations; c. Assessing past and current practices to identify and correct safety impediments which, if left unresolved, may result in personal injuries, property damages, or business interruption. ([www.thehartford.com](http://www.thehartford.com)).

### **5.1. Types of safety audits**

There are two basic audit type approaches: general and specific. The general audit is a facility-wide audit that focuses on basic hazards and their controls. For example, a general audit would include a review of the building's interior and grounds ([www.thehartford.com](http://www.thehartford.com)). The specific audit identifies safety hazards in a department or operation, or on a single piece of equipment. This type of audit is particularly useful in high hazard operations or where there is a high frequency of accidents. The specific audit is detail-oriented and time-consuming. For example, evaluating employee eye and face protection programs; identifying appropriate fire protection measures in a cutting and welding operation.

### **5.2. The safety audit participants and documentation**

There is no industry standard that indicates who should conduct safety audits but first and foremost, senior management must support and participate in the safety audit process. They should endorse the process verbally and in writing to all employees. This lets employees know that senior management is serious about safety audits and is committed to allocating appropriate resources. A large organization may use a safety director to implement and oversee the entire audit program. In other organization, a team approach is used, mixing facility and line managers, supervisors, engineering personnel and employees from various departments. Finally, an outside organization can conduct the audit. Government agencies, engineering firms, insurance carriers and safety consultants are commonly used. For a fruitful safety audit program, all participants must have a fundamental understanding of the safety audit process and to fulfill this requirement the participants have to be trained up. The safety director and facility manager are good candidates to develop and conduct training programs.

The safety audit must be documented in two major portions; one is safety audit checklists and the other is the final report. The checklist covers general safety programs and regulatory compliance; facilities and equipment; and specific hazards and operations on the other hand, the final report, identifies the safety audit findings, makes observations and recommendations to remedy deficiencies, and should highlight serious and repeat observations

The final report should be communicated to management in a timely manner. Upon the review of the final report, management must take the next logical step to correct any safety hazards the audit process reveals ([www.thehartford.com](http://www.thehartford.com)).

## 6. Audit of span of control: performance management audit

The theory of span of control was originated by Luther Gulick, a pioneer in the area of organizational design in the early 20th century, asserted that span of control was determined by three elements—diversity of function, time and space (Gulick 1937). Span of control is identified in current organizational design literature as one of three components of management structure, the other two components being management hierarchy and decision-making (Davis & Weckler 1996).

Span of control audit assess the organizational structures whether it is appropriate to ensure proper control. Span of control refers to the number of employees reporting to a supervisor. Span of control is said to be wide (many direct reports) or narrow (few direct reports) depending on the number of direct reports per supervisor. Management layers refer to the number of levels in an organization excluding the bottom layer of non-supervisory line workers. Organizational structure influences organizational effectiveness. Span of control and management layers are components of organizational structure. It is important to study and plan organizational structure and the span of control because they affect communication, decision making, flexibility, employee morale, and resource allocation. While management literature provides no single benchmark for an optimal span of control, organizations with narrow spans and many management layers can suffer from communication and morale problems and slow decision-making. Spans that are too wide also create problems such as inconsistent performance and inadequate supervision (<http://www.metrokc.gov/auditor/1994/span.htm>).

Different factors like the nature of work, risk entailed, other responsibilities, and geographic dispersion, organization size should be considered when establishing a supervisor's span of control. A single span of control or a set number of management layers cannot usefully be set across all departments ([www.seattle.gov/audit/report\\_files](http://www.seattle.gov/audit/report_files)).

**Table-1: Factors affecting span of control**

<b>Factors affecting span of control</b>	<b>Narrower span of control</b>	<b>Wider span of control</b>
Nature of work	Complex	Not complex
Degree of task certainty	Fuzzy	Definite rules
Similarity of activities performed	Different	Similar
Clarity of organizational objectives	Not clear	Clear
Degree of risk in the work for the	High	Low

organization		
Degree of public scrutiny	High	Low
Supervisor's qualifications and experience	Weak	Strong
Burden of non-supervisory duties	Heavy	Light
Degree of coordination required	High	Low
Availability of staff assistance	None	Abundant
Qualifications and experience of subordinates	Weak	Strong
Geographic location of subordinates	Dispersed	Together

**Source:** ([www.seattle.gov/audit/report\\_files](http://www.seattle.gov/audit/report_files)).

Organization's departments can use span of control charts to evaluate their structure. An organizational chart is prepared on the basis of information provided by the organization's department, showing supervisor/subordinate employee relationships within the organization. Management can use the charts to identify areas where supervisory positions have been created to address compensation issues, areas where self-directed teams could accomplish departments' goals, and areas where information technology would assist front line workers in service delivery.

Organizations with many layers are associated with centralized decision making. Flatter organizations tend to have decentralized decision making where front line employees get authority to make decisions. Reducing management layers and widening span of control provides opportunities for an organization to improve, but not without risks. Communication and decision-making are thought to improve as information passes through fewer layers with increased speed and accuracy. Accountability is clarified as decision-making becomes less diffused. Literature also notes improved employee morale and motivation. As an organization flattens and widens, improved compensation may also result for remaining employees. Personnel cost reductions can be realized if middle management positions are eliminated. Flattening organizations by reducing layers and widening span of control is not without risks. The elimination of layers often happens abruptly, which creates insecurity among remaining personnel. The insecurity as well as insufficient supervision may result in poor morale and performance errors. Widening span of control and de-layering can be hard on remaining managers due to the increased workload. De-layering may also result in a loss of talented and experienced managers. If the span is too wide, communication becomes difficult. There is also a tendency for flat organizations to re-inflate ([www.seattle.gov/audit](http://www.seattle.gov/audit)).

## **7. Bangladesh perspective**

In Bangladesh few organizations practice to measure and assess the value of patents, goodwill, copyrights, trademarks, brands, market value of its share, measure the corporate culture, management philosophy, management processes, information systems, networking systems and also measure the employment safety, employee's education, career development program, training programs, equity issues such as gender, race, religion, employee numbers, employee featured, employee benefits, average professional experience, average education level, employee compensation plan etc. All these are the intellectual capital of a firm, but these all are assessed and measured in an unstructured form. They sometimes take help from the external auditors to measure some of these elements. Sometimes they take help from the experts such as corporate strategists, finance experts, human resource experts etc. But all these intellectual capitals are poorly understood, inadequately identified and inefficiently managed and inconsistently reported.

Whenever we utter the term "health and safety condition of workers" we do remember the scenario of garments' workers in our country. So, there is no doubt to agree with the importance of safety audit mainly in the readymade garments (RMG) sector in our country (RMG sector is highlighted here due to the highest contribution in our foreign earnings from this source as well as highest density of workers per square feet). A series of factory fires and a collapse of another factory building since the Spectrum collapse (April 2005) indicate that adequate preventive safety measures are still not in place. A recently released study from Bangladesh Institute of Labor Studies (BILS) estimates that 130 workers died in the garment industry in 2005 alone, and 480 were wounded. Since the Spectrum collapse there have been a series of additional incidents, the most recent being the fire at KTS Textile Industries, Chittagong (Feb. 23, 2006; 63 reported dead, approximately 100 reportedly injured), Phoenix Building, Dhaka (Feb. 25, 2006; 22 dead, 50 injured); Imam Group, Chittagong (Feb. 25, 2006; 57 injured) and Sayem Fashions, Gazipur (March 6, 2006; 3 dead, approximately 50 injured) (Clean cloth campaign report, 2006).

Comprehensive health and safety reviews (like an assessment on the structural safety of all multi-storied garment factories) and follow-up action measures have been called for by the local unions and NGOs since the Spectrum collapse. It is distressing that no actual progress has been made because most of the garment industries are situated in buildings which were not constructed to such specific purpose or the buildings are not structurally sound. Another risk is fire which is caused due to the electrical short circuit in the factory. In this situation workers' lives continue to be at risk. Having pressure from

foreign buyers the Bangladeshi government has set up a National Forum on Social Compliance in the textile and garment industry, led by the Ministry of Commerce. The Forum also includes other stakeholders. Though trade union and NGO have participated in the Forum and though the Task Forces have been agreed, there is still considerable opposition to this actually happening. Most of this opposition appears to be coming from the BGMEA. Within the National Forum two task forces have been set up: one for labor and another for health and safety. They are supposed to develop concrete plans for short-middle, and long-term measures and a "monitoring cell" will coordinate and monitor all activities. The Forum on Social Compliance has met a number of times. The task forces have identified a long list of improvements needed - most required by law together with an indication of whether these are needed in the short, medium or longer term. Meaningful trade union participation in this task force is essential if they are serious about social compliance, occupational health and safety, minimum wage, workers' right to organize and any other issues affecting garment workers (Clean cloth campaign report, 2006).

Factories Act 1965 (Act XXV of 1934) adopted with the objective of regulating the appointment of workers, their wages and the working conditions in factories, including health and hygiene, safety, welfare, working hours, leave and holidays, and punishments and penalties for both the owners and workers for non-compliance of the requirements. The Act requires that factory must ensure adequate fire safety measures, appropriate means of escaping in case of fire, and protection against dangerous and accident-prone parts of machinery, electric and mechanical devices, self-acting machines, etc. Workers are to be given proper training before they are employed on dangerous machines. Controlling appliances of cranes and other lifting machines, hoists and lifts must be of good construction, sound material and adequate strength. Other sources of dangers, such as pits, sumps, openings in floors, etc, should be securely covered or fenced and effective screens or suitable goggles should be provided to workers to protect their eyes. Every factory is to have adequate and suitable facilities for washing and bathing and provide first-aid medicines and appliances. Canteens and rooms for children should also be maintained. In every factory wherein five hundred or more workers are employed, the occupier should employ a number of welfare officers as may be prescribed.

BGMEA has been implementing a number of programmes to ensure work place safety for workers as well as management personnel of its member units. In addition to providing support to the members to comply with the safety rules set by the government, BGMEA has been organizing training and awareness building programmes for the workers and the management staff. The association regularly monitors and follows up proper implementation of safety compliance by individual member factories. The

BGMEA Safety Measures Cell, which organizes the awareness and training programmes, has provided fire prevention and safety training to 9,194 employees of 794 factories from Dhaka and Chittagong between December 1997 and July 2002. (Bhattacharya et al 2002). However, BGMEA recently told a local daily newspaper that it is not capable to monitor its 4,210 member factories. 18 BGMEA inspectors are visiting 3 factories per day. Up to March 19, 2006 the BGMEA had inspected only 169 factories and conducted 133 fire drills as part of its ongoing drive to ensure safety measures (not labor standards). Obviously BGMEA's efforts are insufficient. Many more inspectors will be needed and next to a review of the condition of the buildings and fire drills a social audit of all factories is essential.

So, the safety audits are apparently underway, with teams composed of representatives from the BGMEA, the labor inspectorate, fire service inspectorate and RAJUK (an urban development and planning authority). Local reports note that the government's factory inspection office (under the directorate of labor) hopelessly lacks the capacity to comprehensively inspect workplaces for compliance with safety and other standards - only 20 inspectors are employed for a reported 50,000 factories (Clean cloth campaign report, 2006).

Span of control audit reveals the effectiveness of organizational structure whether it is suitable to ensure organizational control. Span of control ensures management efficiency to ensure effective utilization of organization's resources. Now a day's employees are considered as a human resource of the organization. The appropriate ratio between the supervisor and workers can ensure proper discipline throughout the working environment and also ensures the assigned responsibility to each workers and supervisors. But in our country specially public sector enterprises span of control or the size of organization's structure depends on the dysfunctions resulting from organizational and procedural complexities extant in both political and bureaucratic structures (Zafarullah, H.1998). The significance of span of control is totally isolated though there is limitation of organization's resources (human, physical and financial). On the other hand, organizational structure or span of control is determined just without considering any appropriate basis like nature of work or degree of public scrutiny. From the above discussion it is become clear that it is not still in practice in Bangladesh. So, it is become necessary to conduct span of control audit to determine the suitable span of control chart so that organization's resources can be effectively utilized.

## **8. Concluding remarks**

Management consultancy services are used to improve the organizational operations by providing necessary suggestions to the management to carry out the policies and

procedures of the various aspects of the organization. Intellectual capital audit can be an effective tool for improving the overall management of enterprises. It helps to evaluate and design R&D programme, provides knowledge in re-engineering a firm to retain valuable capability and know-how, and helps plan education and training programs mutually beneficial to the employees and organization. It provides information on assets not recorded in traditional accounting to ascertain the awareness and importance of intellectual capital. All these are carried out by the successful implementation of intellectual capital audit. But in our country its implementation in some aspects like calculation of market share, customer satisfaction, networking systems, valuation of patents, copyrights, trademarks, career development are done but with an unstructured format.

Safety audit and Span of control audit are another two new horizons in the field of management audit. A safety audit is a proactive process by which an organization is able to continually evaluate and monitor the progress of its safety and health programs and the risk associated with them. Safety audit is conducted in our country mainly in the readymade garments (RMG) sector. Here, this audit is performed by BGMEA, the labor inspectorate, fire service inspectorate, RAJUK, etc but their manpower is inadequate to comprehensively inspect workplaces for compliance with safety and other standards. So, many more inspectors will be required and than have to conduct a social audit of all factories to review of the condition of the buildings and fire drills, is also essential.

Since the foreign buyers are giving pressure and setting standards to ensure workplace safety, so the management should take initiative to ensure it to enhance their business growth. In this respect Govt. should impose penalty such as immediate cancellation of membership and licenses by the BGMEA and the Govt. on those factories which are not comply with the relevant act or rules.

Span of control audit assess the organizational structures whether it is appropriate to ensure proper control. Organization's department can use span of control charts to evaluate their structure. Management can use this chart to identify areas in the organizational structure where improvement is necessary. The span of control charts can be an effective tool for improving management efficiency to ensure proper control.

Intellectual capital, organization's health and safety condition and management span of control are the vital aspects which are in the past ignored but proper monitoring and evaluation of all these sectors through conducting such management audits will fruitful the organization's objects.

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## APPENDICES

### Intellectual Capital Framework

INTERNAL CAPITAL	EXTERNAL CAPITAL	HUMAN CAPITAL
1. Intellectual Property	13. Brands	23. Know how
2. Patents	14. Market share	24. Education
3. Copyrights	15. Customer satisfaction	25. Vocational qualifications
4. Trademarks	16. Company names	26. Employee involvement in the community
5. Infrastructure Assets	17. Distribution channels	27. Career development
6. Management philosophy	18. Business collaborations	28. Entrepreneurial spirit, innovativeness, proactive and reactive abilities, changeability
7. Corporate culture	19. Licensing agreements	29. Training programs
8. Management processes	20. Favorable contracts	30. Equity issues: race, gender, and religion
9. Information systems	21. Franchising agreements	31. Equity issues: disable issues
10. Networking systems	22. Quality standards	32. Employment safety
11. Financial relations		33. Union activity
12. Technological processes		34. Employee numbers
		35. Employee thanked
		36. Employee featured
		37. Executive compensation plan
		38. Employee compensation plan
		39. Employee benefits
		40. Employee share scheme
		41. Employee share option scheme
		42. Average professional experience
		43. Average education level
		44. Value added per expert
		45. Value added per employee

**Source:** Abeysekera, August 2001