

# Strategic Productivity by Marketable Technology

Nasser Fegh-hi Farahmand (Corresponding author)

Department of Industrial Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran PO box 6155, Tabriz, Iran

Tel: +98-411-3300727 E-mail: farahmand@iaut.ac.ir

#### **Abstract**

Continuous training, employment security, performance appraisal and alternative compensation systems can motivate skilled employees to engage in effective discretionary decision making and behavior in response to a variety of environmental contingencies. Organizations can make imperfect observations about a technology performance. Productivity is often described with ample justification, as the secret of technology success, economic progress and increasing wealth. Consequently, by basing pay on technology performance, organization might achieve higher technology productivity than pay that is a simple time-based rate, e.g., daily or hourly. This article attempts to explain the strategic productivity by marketable technology behavior of the technology managers by linking it with the fixed patterns of thinking.

Keywords: technology, strategic technology planning, marketable technology, strategic productivity

#### 1. Introduction

Possibly the primary benefit of being able to agree to a contract is its commitment value. The technology resulting outcome is one that potentially maximizes the total value created. Technology managers like to follow a similar and routine technology behavioral pattern because they never give a try to thinking in an unfamiliar way, as unfamiliar always entails the fear of the unknown.

In contrast, without clear contractual commitments, some rights and technology obligations are either not specified, or the payments for them will arise only after later rounds of negotiation.

The structure of an organization's Knowledge, Technology and Culture (KTC) can affect employee motivation levels in several ways. Recognizing the importance of KTC in achieving flexibility in an international context expands the types of research questions related to the role of KTC functions in organizational performance.

Suppose first that the technology workers and the managers can write a contract, if such a contract cannot be written, this value-maximizing outcome is unlikely to arise. This paper considers the value of KTC as an important intangible asset of an organization. The strategic importance of workers is discussed and their interaction, as an asset, with other important organization assets. The basic methodologies for valuing KTC are then explained and their limitations are considered for strategic productivity by marketable technology.

## 2. Strategic productivity

In general parlance, however, strategic productivity is the measure of the ratio of the output to the amount or quantity of the resources input, which is utilized in the relevant production process. Over a given time scale, productivity is a measure of the efficiency of an enterprise, or an economy-namely, how effectively given resources are, or can be utilized. There is a presumption that if productivity or efficiency is low, even abundant resources will be frittered away as a result of high-cost and inefficient exploitation of such resources. In the literature, it is posited that the industrial revolution and the movement away from agrarian society was the pivotal point in history that instigated the concern with workers output.

Among a number of factors that were since that time believed to have some influence on strategic productivity are:



- a) The growth of strategic organized labor
- b) Technological strategic advancement
- c) The strategic changing role of marketable technology.

For instance, marketable technology was assumed to have some influence on productivity, albeit often indirect through labor legislation, consumer protection regulations and even tax regulations, which may redirect the way in which factors of production are allocated.

Based on the idea that productivity is a systematic concept concerning the conversion of inputs to outputs by the system under consideration, Dynamic concept can be defined more specifically as outputs relative to the four major resource inputs of the organization as:

Productivity = outputs / technology including labor + capital + material + energy

Productivity so defined is referred to as total productivity i.e., total outputs/total inputs) output relates to only one, two, or three of the inputs are thus partial measures of productivity. e.g., output per unit of capital, per unit of material, per unit of energy, respectively.

Productivity is measure of how well resources are brought together in organizations and utilized for accomplishing a set of results. Based on this view, productivity implies reaching the highest level of performance with the least expenditure of resources. The relations states further, compares outputs with one or more inputs, often factors inputs like labor and capital to define some meaningful measures like:

- 1) The work environment as to be safe and healthy, i.e., no hazards and no undue risks.
- 2) The opportunity to use talents effectively to acquire new skills and knowledge for advancement must be ever present.
- 3) The employees at all levels have occasions to develop their capabilities through problem solving and planning.
- 4) The social climate of the organization is free from prejudice and rigid classifications.
- 5) The job does not take excess time and energy from other aspects of life.

Remarkably, several factors have as pointed out, affected productivity one way or the other. They range from environmental, technological organizational, cultural, sociological and economic factors and the human factor. However, the significance of the influence of the environment on organization's operational activities and performance was only acknowledged. It is not enough for us to understand the socio-cultural sources of these deviant orientations, it is necessary for us to do something practically to arrest and control them.

Productivity should reflect our total commitment to improve the way we do things, our attitude to work, a commitment to improve our work ethics, a commitment that whatever we do today can be improved upon.

Tackling and overcoming the problem of low productivity of organizational workers is not impossible although daunting. There was every reason to believe that the organizational worker could be as efficient and productive as its counterparts anywhere in the world.

In fact, stress that organizational activities are influenced by what happens in the external environment. Inability to ineffectively manage the human factor as manifested in several negative ways including the following; employees often arrive at the office fatigue and exhausted as a result of poor transportation facilities and harsh living conditions in most urban cities. They are also compelled to make use of materials and machinery which are far from suitable for attaining the desired level of performance

### 3. Organizational strategic productivity

The strategic productivity information, unclear goals, inappropriate selection and use of technology, inability to integrate workers and processes and use of misleading metrics or improper measurement approaches are the major barriers in implementing and managing strategic productivity projects systems that seek to identify individuals with the ability to learn and adapt to new situations and markets can provide a firm with competitive advantage.



The importance of strategic, long-term policy and planning in science and technology is very clear to planners and policy developers, from the fact that they need both considerable resources in order to carry out the planned activities, and a long lead time to accumulate the required trained manpower. The more we understand people and their total environment, the more their needs are likely to be met. When we talk about valuing workers relationships, the scope of definition is expansive. On the one hand, it is simply the value that workers generate for the organization. On the other hand, it is purely the value of the relationship. Neither definition is more correct than the other; however, the purpose and approach for valuing each are different. A positive experience throughout the workers cycle should foster trust and develop loyalty, therefore allowing an organization to generate more revenue for less incremental expenditure.

Organizations use organizational resources as the basic ingredient for all that is required for their operations. They are therefore eager to maintain and improve the quantity of expendable organizational resources by not only resources utilization, but by also identifying, nurturing and maintaining characteristics that promote organizational performance. Improved and sustainable performance ensures that an organization continues to fulfill its mission and survive into the competitive future. Many externals and organizational variables have been identified in the literature as affecting organizational empowerment.

The fact that some variables affect organizational empowerment managers and some researchers to seek to identify those factors that positively or negatively affect the particular organization or industry of their interest with the aim of strengthening the positive variables and ameliorating the effect of the negative ones for those organizations and industries to post superior economic performance. Organizations are most likely to do the same when experiencing decline. Without organizational empowerment, management cannot enable an organization to compete for the future, but developing distinctive capacity can. One then wonders if developing appropriate characteristics in conjunction with appropriate competencies would not ensure a better performance in a more intensely competitive future.

Furthermore, it seems that the emphasis on organizational empowerment as structure, strategy and systems has not yielded the desired results as some of the companies where these variables have been changed, after sometime, went back to experiencing declining performance. It is therefore obvious that more research needs to be done to identify characteristics that enhance organizational performance.

Adequate attention should be given to the development of organizational empowerment policies and practices by all organizations to promote the growth and development of technology capital. Training, discipline, adequate reward system and organizational empowerment by technology should be encouraged. Mentoring, a veritable tool for management development should be encouraged among top executives and organizations. Technology should also be encouraged to apply their organizational empowerment in the work place. Organizational empowerment management behavior of the chief executive and indeed of all cadres of management should emphasize and enhance organizational empowerment concern.

When organizational strategic productivity by marketable technology, management of strategic productivity by marketable technology are willing for develop organizational empowerment that enhances organizational performance. There is a manifest need for the executive management of organizations to put their individual and collective skills at the disposal of their various organizations. The non significant position of this variable in this study indicated that management of strategic productivity by marketable technology is not impacting adequately on performance in various organizations. Indeed, the dismal performance of the various sectors of the organizations attests to this fact. So, there is the need not to only improve the portfolio of management of strategic productivity by marketable technology but to also to apply these skills in various organizations.

The unwholesome position of organizations value system makes moral rearmament an imperative for organizational survival and national rebirth. management of strategic productivity by marketable technology must emphasize what is of value and what organizational performance is acceptable at organizational and at national levels. These values should be communicated to all levels both in the organizations and the nation. Appropriate sanctions and rewards system should be instituted and related to the performance of organizational empowerment. This will ensure that employees would apply their management of strategic productivity by marketable technology skills to their organizational empowerment



to improve organizational performance.

#### 4. Marketable technology

Product placement is becoming more and more important, especially for reaching wealthier consumers, as the affluent have many more options. Marketable technology further discusses two relatively new tools for evaluating how well these and other marketing practices work: eye-tracking and micromarketing.

Marketable technology has always used technology to advance their art. Recently, researchers have used structural-equations marketing to explain how consumers used shop-bots on the internet and models for forecasting new product adoption. As the end of the first decade of the twenty-second century nears, it is already apparent that technological advances will continue to change how marketing is practiced. How four promising innovations may impact marketing in the future? Specifically, this how two advertising product placement will increase in importance due to socioeconomic and technological factors such as the growing popularity of online games? Online advertising supported entertainment, is growing rapidly among those who are willing to expose themselves to more advertising in exchange for free or subsidized entertainment. This bargain is more attractive to those with less disposable income as they have fewer entertainment options.

An important difference between television ads, pop-up ads is the time exposure. Most of the previous research has focused on survey research and very little has been done on the physiological reactions of consumers. The values and advantages of marketable technology and product placement may also be seen by pointing out the shortcomings of traditional methods of advertising such as newspaper and radio advertising. Traditional advertising faces numerous serious challenges that are difficult to overcome. These challenges are summarized as follows:

- 1) Consumers are exposed to a tremendous number of advertisements on a daily basis which makes it impossible to give significant attention to most of them and this number is expected to continue to increase in the future. This is truer than ever before due to the various venues available to advertisers. No matter how useful or how interesting a piece of advertising is, the customer has neither the time nor the mental resources to dedicate sufficient attention to it.
- 2) The majority of advertising is presented to consumers when they are not shopping for products or services being advertised. This makes it even more difficult for consumers to pay attention, retain or respond to these advertising. In addition, these advertising messages are viewed to be less relevant to the consumer during the time the consumer is exposed to them.
- 3) The cost of advertising and particularly advertising is fairly high so companies limit the length and frequency of airing those commercials; therefore, the time the consumer is exposed to these commercials is very short.

It is probably safe to say that the majority of consumers do not consider the nature of most advertising to be worth their attention or time. Several authors investigated consumers' attitudes toward advertising over an extended period of time found that the general attitude of the public toward advertising is negative.

Although, this criticism is usually directed at the tactics advertisers employ and not at the institution of advertising itself, it does impact the attitudes of consumers toward advertising in general.

This poses a serious problem for marketers because advertising effectiveness is believed to be rooted in the view that advertising messages are potential communication exchanges between advertisers and consumers.

This communication exchange is central to marketing success the exchange assumes that both parties give and receive something of value in order for both parties to be satisfied.

The main objective of the advertiser is to sell or create a positive perception toward the product or service. To the consumer, the value of advertising is achieved when advertising matches or exceeds their expectation.

The negative perception of consumers toward advertising has been significantly impacted by irritation felt toward the bombardment of daily advertising. For example, the main reason for people's criticism of advertising has to do with annoyance or irritation caused by either the number or type of advertising



directed at consumers. This irritation is believed to lead to a general reduction in advertising effectiveness.

More affluent consumers will enjoy advertising free content through premium services, purchasing ad-free media which will become better at bypassing commercials as technology advances. Product placement will become more vital for reaching wealthier consumers, especially those whose ample resources allow them to consume many advertising-free entertainment options.

Less affluent consumers will be exposed to more adverting by watching advertising support content through traditional television channels as well as through the internet.

More and more marketers will use techniques such as marketable technology to measure and improve the effectiveness of product placement and advertisements.

#### 5. Marketable technology performance

The strategic performance of organization, which determines its survival and growth, depends to a large extent on the productivity of its technology. In fact, the wealth of a nation as well as socio-economic well being of organization depends on the effectiveness and efficiency as strategic productivity of its various sub components. Organizational marketable technology is generally regarded as the most dynamic of all the factors that are employed for the creation of wealth, having the potential to energies and serve as catalyst to all of the other resources. Productivity is thus of fundamental importance to the Organizational marketable technology of whatever status, to the organization whether commercial or not and to the national economy at large and accordingly.

Performance by productivity in an organization can, in principle, be influenced by a wide range of internal and external variables, which may be categorized as:

- 1) General marketable technology factors: Among which are climate, geographic distribution of raw materials, fiscal and credit policies, adequacy of public utilities and infrastructural facilities, etc.
- 2) Organizational marketable technology and technological factors: Namely, the degree of integration, percentage of capacity, size and stability of production, etc.
- 3) Human marketable technology factors: Which include labor-management relations, social and psychological conditions of work, wage incentives, physical fatigue, trade union practices, etc?

Performance by productivity, the problem remained more or less unabated. It is not in doubt that organization is richly and extra-ordinarily endowed with all the three basic principal factors needed for enhancement of productivity, namely, capital and resources, it has been unable to take advantage of these factors to obtain at least a corresponding level of outputs consequent to which the country, several years since it attained political independence, is yet poverty ridden.

Organizational growth relies on the ability to continually generate profits; this in turn depends on their products meeting customers' needs and expectations. Generally, organizational customer satisfaction is evidenced in the high rate of customer loyalty, good reputation, increase in market share, improvement of performance and reduction in complaints, etc.

There is no doubt that valuing acquired intangibles such as brands, patents and workers lists makes a lot of sense rather than placing these organization critical assets in the accounting black hole known as goodwill. Marketable approaches recognize that selection of organizational empowerment is a complex process that involves a significant amount of vagueness and subjectivity. Knowledge, Technology and Culture (KTC) are pretty straightforward to value, their visible and corporeal nature makes them relatively easy to define and in most cases there is an active market from which value can be derived. In contrast, the results of poor customer satisfaction include loss of customers, decrease in market share, deterioration of performance, poor reputation and increase in customer complaints, etc., which directly affects gross turnover and operating costs.

Therefore, customer satisfaction has become an important operating goal to which enterprises have competed to make the commitment. Moreover, measuring and monitoring customer satisfaction has become an important research topic for enterprises. The operational concept based on customer satisfaction, where the operation of quality management system is customer-oriented and aims at improving customer



satisfaction; customers' needs and expectations are satisfied through clear management responsibility, communication, resource management and product realization process; the structure of measuring and monitoring customer satisfaction is proposed on the basis of overall performance of the quality system and requires enterprises evaluate performance from the perspective of customers.

Systematically monitoring customer satisfaction can provide managers with useful information for diagnosis, help an enterprise identify areas of improvement and thus increase profitability through continuous improvement in customer satisfaction.

The methodology for measuring organizational customer satisfaction often adopted by many enterprises is survey by questionnaire either at regular intervals or after products and services are delivered. Returned questionnaires are analyzed and the results are provided to management and then documented. It seems that the concepts and standards of customer satisfaction and target management have not really been recognized in all organizations and hence produced no benefit to technology operations yet.

## 6. Strategic productivity by marketable technology

Since it is impossible for the planners to have all important data and information in specialized areas, and yet they are required to make informed decisions, the need arises for a process now known as technology foresight. Technology foresight is different from technology forecast in that the latter assumes that there is only one future, and attempts to describe the development of technology through that static future, while the former assumes that there are alternative futures which can be shaped by technology. Fore sighting is therefore a more dynamic and challenging process than forecasting, involving interaction between technology and society, and between the present and future. Technology foresight requires expert judgment, often collective judgment of various experts.

Furthermore, public opinion and the opinion of professionals in areas other than science and technology are important and must be taken into account. The foresight studies aim at constructive outcome resulting from the tensions and dialogues between the scientific and technological experts and users of the results of technology. The former tend to focus on feasibility of future technologies, whereas the latter naturally concentrate on their attractiveness together with potential pitfalls. Multidimensional considerations should lead to a balanced foresight and optimal recommendations for future action.

It is interesting to note that the leading to a conclusion that for industrially developed countries, there are similar expectations about the realization of technological developments.

In summary, approaches to technology foresight vary from country to country. The organization cans developing a process performance indicator, with which one tracks how the overall performance of technology processes has been developed. In order to assess comprehensively the overall development of a whole technology and its organizational learning, the BE award approach is applied. Assessments based on quality award criteria have been applied at organization as internal assessments by boards of directors in different technology units. The assessments are based on the BE criteria, which have been used in developing organization's own approaches and assessment tools. By utilizing general quality BE criteria, a technology is able to be placed on a "global map" of overall technology performance. One determines the level at which:

- The technology itself is,
- The partners and competitors are,
- The best international companies are.

Some of organization's technology units have applied the BE award in order to calibrate their internal assessments with a more general assessment scale. However, even participation in the BE award competition is understood as a part of assessment to improve technology performance.

General conclusions and lessons learnt can be drawn from organization's experiences of company dedicated BE implementation. When implementing BE, clearly recognized BE principles and effective professional methodology are to be employed in a natural and innovative manner integrated with company specific technology emphases and management infrastructure.



BE management principles and core values and concepts of the BE award models are useful when creating bases for the company dedicated approach. When striving for competitiveness good practical experiences underscore:

- 1) Technology performance excellence instead of narrow quality thinking,
- 2) Flexible realization of quality of management and leadership instead of distinct quality management,
- 3) Organizational learning instead of continual improvement,
- 4) The systematic of the quality of BE leadership instead of formal and distinct systems,
- 5) Technology-related principles and actions of the BE of leadership instead of formal and general assurance requirements,
- 6) Stretched technology objectives instead of minimum standard requirements,
- 7) Innovative and unique solutions instead of stereotyped systems,
- 8) Internal technology performance self-assessments instead of third party audits and certifications of quality systems,
- 9) Tacit knowledge instead of only records of explicit data and information,
- 10) Own company-internal expertise instead of external consultants.

Basically, effective implementing company dedicated technology integrated BE does not call for any extra measures or investments. General information sources standards and technology excellence models are utilized as reference materials for appropriate measures. Experiences have proved that it is always worthwhile to improve the existing quality management based on a systematic methodology. For BE the organization must be always ready but never finished.

The importance of strategic, long-term policy and planning in science and marketable technology is very clear to planners and policy developers, from the fact that they need both considerable resources in order to carry out the planned activities, and a long lead time to accumulate the required trained manpower. In spite of this general awareness, such long-term strategic productivity by marketable technology, strategic-level planning of marketable technology has been lacking in most organizations. The reasons lie partly in the fact that the typical period for social and technology planning is around last years, only a relatively short time.

Marketable technology plans in science and strategic productivity by marketable technology, normally taken as a part of social and technology planning, therefore also tends to run in cycles of around last years. The difficulty in long-term technology planning is also due to the rapid and unpredictable evolution of science and marketable technology, making it very hazardous to forecast development beyond a period.

Strategic productivity by marketable technology in organizations acquired an impetus with long-term policy statements, such as technology vision. A technology vision provides the wanted scenario to strive for, the end point of a long-term policy. However, the technology vision must be accompanied by a roadmap to allow the journey which starts now, to reach the required destination in the future. Such a technology roadmap is provided by strategic planning, namely planning of strategies on a broad and long-term basis.

The strategic productivity by marketable technology usually involves setting goals within a time frame and milestones to be reached along the way. The main difficulty for strategic technology planning in science and technology, however, is that it requires not only technical expertise in specific subject areas, but also awareness of the technology implications of new technical developments. It requires not only estimates of input in order to achieve technical goals, but also estimates of output and impact on the technology, in order to be able to judge as best as possible whether the required input for an extended period is justified or not. It requires the technology planners not only to know how, but even more importantly to know why certain goals and milestones should be set. The technology technical complexities of subject areas, combined with their broad technology implications, require that the technology planners must have both deep and broad information base for technology decisions. Furthermore, subjective evaluations necessarily come into play, especially when long-term commitments are required with only scarce resources. While a common



technology vision may have been agreed upon, there are many alternatives to reach the vision.

#### 7. Strategic productivity by marketable technology model

Strategic productivity by marketable technology participation in the science and technology policy-making has become an important trend in many organizations. For example, need to explicitly involve the technology in the policy-making process have been identified as a competition priority. There is also a considerable history of participatory technology assessment in few organizations, which has served as an inspiration for similar experiments in other nations. If not yet in general practice, the awareness of the participatory approaches, at least, has become common.

Marketable technology has often been the topic of the first participatory experiments with science and organizations technology policy-making. A central motivation for this has been the public uneasiness towards many of the applications of gene organizations technology, as well as the general distrust of the public towards officials, scientists and representatives of organizations in the management of risks. Participatory decision-making considered as a means for reconstructing trust in risk management with marketable technology technologies. The technology model shares with the enlightenment model the assumption of public ignorance and thus belong to the category of deficit models. In this model, however, the mission of organization is technology instrumental. They have taken as means for creating favorable conditions for technology development, and for increasing national prosperity. There are two assumptions underlying this idea:

- a) Environmental acceptance of organization thought to be an important lubricator for marketable technology, and promoted by raising the overall level of technology awareness of organization.
- b) Environment with better knowledge of organization thought to be a valuable resource in the marketable technology markets. Since the public informing attempts to improve acceptance of organization, research under the technology model mainly focused on strategies for effective technology communication. In general, terms, both the technology and the organization interpreted as resources for the creation of competitive advantage under the technology model.

In this model, there is an endemic need for increasing technology effective science communication. Thus, the inclusion of the in the technology structures of organization decision-making is neither principally refuted nor taken as a point of departure. Participatory procedures will used if they can increase the organization acceptance of the applications of S&T; they will not be used, if the organization is true. In principle, the technology promise may function as an incentive for organization inclusion, if there is proof for its effectiveness. On the other hand, there may be a temptation to set technology boundary conditions for the inclusion of organization opinion, which would mean that the participation would be to some extent, is illusory and hardly to co-optation.

The technology model based on a questioning of both the assumption of organization ignorance and the main strivings expressed in the enlightenment and technology models. Instead of taking public ignorance as granted, the critical model is interested in studying the various construction processes and functions of scientific and technology technological knowledge in technology understandings as well as in the organization. With these questions, the critical approach resembles sociology of scientific technology knowledge.

In this model, the technology persons empowerment of sustainable decision-making are core values, to which increasing public participation is though to be a most appropriate means. If this model were dominant, the structures of the technology decision-making would differ greatly from the current, including even utopian features. The starting point in the technology model is the assumption of science and technology. The main role reserved for the public is that of a receiver of scientific technology information, while the technology person's community considered acting in the role of an informant. Table 1 shows strategic productivity by marketable technology models.



Table 1: strategic productivity by marketable technology models

Factors	Technology model
Mission of organization	Public reflection on organization technology sustainable decision-making
Research object	Constructions of organization understandings
Role of organization	Subject of technology persons empowerment
Role of technology persons	Subject for reflexive technology control

Many of organizations have sustained their strategic productivity by marketable technology management systems focus over time, although these investments may or may not be considered part of a long-term Organizational strategic productivity by marketable technology strategy.

Valuing workers on the basis of historic cost demonstrates the effectiveness of the marketing team rather than providing a robust indication of workers value. For example, one major hospital defines its strategic productivity by marketable technology systems as the marketing databases and campaign management and considers distribution methods to be a separated systems investment area. Regardless of the basis for calculating costs, it is almost always true to say that the cost of something rarely reflects its worth. The principal weakness of the multiple excess earnings approach is that it is complicated to carry out. Furthermore, correctly identifying all the value drivers operating functions and intangible assets employed and calculating their respective functional returns and present values is open to distortion and inaccuracy due to the sensitivity of the valuation to key assumptions and source data. In the case of an acquisition, the excess returns will also include the value of any synergies resulting from the organization combination.

Different organizations have different priorities and varying amounts of funding to invest in strategic productivity by marketable technology. Many of these organizations have sustained their strategic productivity by marketable technology systems focus over time, although these investments may or may not be considered part of a long-term strategic productivity by marketable technology strategy. Science and strategic productivity by marketable technology have had unprecedented impact on economic growth and social development. Knowledge has become a source of economic might and power. This has led to increased restrictions on sharing of knowledge, to new norms of intellectual property rights, and to global trade and technology control regimes. Scientific and technological developments today also have deep ethical, legal and social implications. There are deep concerns in society about these.

The ongoing globalization and the intensely competitive environment have a significant impact on the production and services sectors.

Strengthening appraisal as perhaps, the most central marketable technology function is required to justify a wide range of decisions such as selection, compensation, promotions and training. The concept of workers value discussed above for strategic purposes is very different from the accepted definitions applied by those involved in carrying out technical valuations for financial reporting. Because of all this, our science and technology system has to be infused with new vitality if it is to play a decisive and beneficial role in advancing the well being of all sections of our society. The nation continues to be firm in its resolve to support science and technology in all its facets. It recognizes its central role in raising the quality of life of the people of the country, particularly of the disadvantaged sections of society, in creating wealth for all, in making.

#### 8. Conclusions

Strategic productivity includes defining and evaluating performance and providing employees with feedback. Rewards include bonus, salary increases, promotions, stock awards, and perquisites. Technology balancing practices in general and compensations systems in particular have been shown to be highly related to organizational performance. International organizations have considerable discretion in the design



of pay policies and the choices made have consequences for organizational performance. Overall, from the point of view of performance measurement and strategic planning, the value and definition of a organizational relationship with its workers may not be particularly relevant. It is more practical and beneficial to determine the value generated per workers from the assets employed in the organization to measure performance and plan for the future. Organizations that are similar in terms of types of employees and jobs, product market, size, and so on may choose compensation system designs that differ in their effectiveness for attaining similar goals. Performance appraisal is defined as the process of identifying, evaluating and developing the work performance of the employee in the organization so that organizational goals and objectives are effectively achieved while, at the same time, benefiting employees in terms of recognition, receiving feedback, and offering career guidance.

The terms performance assessment, performance evaluation and performance management are also used to describe the process. Science and technology have profoundly influenced the course of human civilization. Science has provided us remarkable insights into the world we live in.

A significant finding from this study and own experience is that many issues remain unrecognized for far too long after they are first identified. Valuing intangible assets, in particular workers-related intangibles, is clearly not a straightforward exercise. Each valuation method prescribed by accountants has different strengths, weaknesses and complexities and yet none are able to provide an indisputably accurate and reliable value. Although these values are not as robust as we would hope, it is certainly better to attempt to attribute value to intangible assets than classifying everything as goodwill.

Science and strategic productivity by marketable technology have been an integral part of organizational civilization and culture over the past several millennia. Few are aware that India was the fountainhead of important foundational scientific developments and approaches.

The central mission of organizations activities under the enlightenment model is to raise the technology level of the organization. This may also coupled with other enlightenment values such as providing technology tools for cultural understanding or tools for acting as full members of the marketable scientific strategic productivity by marketable technology. Research focused on specifying the extent, particularities and changes in the level of the public knowledge of organization, and it is supposed to serve as the basis for further technology interventions. The key issue is whether the firm wants to make use of these relationships in the way it manages customers or not, and whether a given customer wants to be an actively managed relationship with the service provider, or not. Organizations compete with the quality level of their operations. An organization, which can not manage operations competition, will have problems surviving. In order to be able to do this successfully, the organization has to view its business and its customer relationships from a service existence for strategic productivity by marketable technology.

#### References

Akinyele, S.T.(2011), A Critical Assessment of Environmental Impact on Workers Productivity in Nigeria, http://scialert.net/fulltext/?doi=rjbm.2007.50.61&org=10

ASTEC, (1996). Matching Science and Technology to Future Needs: 2010, 22 reports accessible through http://astec.gov.au.

Beck, U. (1992). Risk Society - Towards a New Marketableity. London, Sage.

Cronberg, T. (1996). "European TA-discourses - European TA?" Technological Forecasting and Social Change 51(1): 55-64.

Dobni, B., Dobni, D. and Luffman, G. (2001) 'Behavioural approaches to technology strategy implementation', Technology Intelligence & Planning, Vol. 19, No. 6, pp. 400–408.

Eccles, R. G. (1991) 'The performance measurement manifesto', Harvard Technology Review, Vol. 69, No. 1, pp. 131–137.

Feghhi Farahmand, Nasser (2001), Executive Management Process, Islamic Azad University, Tabriz Branch, Iran, pp 21-42.

Feghhi Farahmand, Nasser (2003), Permanent Management of Organization, First edition, Frouzesh



Publication, Tabriz, Iran, pp19-172.

Feghhi Farahmand, Nasser (2003), Strategic Structure of Organization Management Process, Forth edition, Islamic Azad University, Tabriz Branch, Iran, pp 97-141.

Feghhi Farahmand, Nasser (2005), Strategic Management of Organization, First edition, Frouzesh Publication, Tabriz, Iran, pp 97-201.

Feghhi Farahmand, Nasser (2009), Organization Strategic Plan compilation, First edition, Frouzesh Publication, Tabriz, Iran, pp 84-92.

Feghhi farahmand, Nasser (2011), Active and Dynamic Management of Organization, Second edition, Frouzesh Publication, Tabriz, Iran, pp 116-189.

Feghhi Farahmand, Nasser (2011), Technology Management of Organization, Second edition, Frouzesh Publication, Tabriz, Iran, pp 91-95.

FIB (1998). Uusinta tietoa suomalaisten asenteista biotekniikkaan, FIB, Suomen Bioteollisuus.

Franco, M. and Bourne, M. (2003) 'Factors that play a role in 'managing through measures'', Management Decision, Vol. 41, No. 8, pp. 698–710.

Frewer, L.,Rowe, G,Marsh, R. and Reynolds, C. (2001). Public Participation Methods: Evolving and Operationalising an Evaluation Framework. UK Department of Health.

Fuller, S. (2000). The Governance of Science: Ideology and the Future of the Open Society. Buckingham - Philadelphia, Open University Press.

Gilligan, T. (1987), Collective Decision-Making, Journal of Organization, pp 140-148.

Irwin, A. (1995). Citizen Science. A Study of People, Expertise and Sustainable Development. London and New York, Routledge.

Irwin, A. and Wynne, B. (1996). Introduction. Misunderstanding Science? The Public Reconstruction of Science and Technology. Cambridge, Cambridge University Press: 1-17.

Jain, R., Jain, S. and Dhar, U. (2007) 'CUREL: A scale for measuring customer relationship management effectiveness in service sector', Journal of Services Research, Vol. 7, No. 1, pp. 39–51.

Joss, S. and Durant, J., Eds. (1995). Public Participation in Science - The Role of Consensus Conferences in Europe. London, Science Museum with the Support of the European Commissions Directorate General XII.

Juhani Anttila, M. Sc. (El. Eng.), The Third International Conference on Quality Management, Technology-Integrated Quality Approach In Sonera Corporation, Quality Integration, Sonera Corporation, Finland

Kalliny M. and Gentry, L. (2011), Marketing in the 22nd Century: A Look at Four Promising Concepts, http://scialert.net/fulltext/?doi=ajm.2010.94.105&org=10

Klüver, L., Nentwich, M., Peissl, W., Torgersen, H., Gloede, F., Hennen, L., Eijndhoven, J. v., Est, R. v., Joss, S. and Bellucci, S. (2000).. European Participatory Technology Assessment. Participatory Methods in Technology Assessment and Technology Decision-Making. Copenhagen, The Danish Board of Technology.

Kuwahara, T., (1997), Technology Foresight in Japan: a New Approach in Methodology and Analysis. Technology Foresight, NSTDA, Bangkok, p. 87-93.

Kuwahara, T., (1997). Technology Foresight in Japan: a New Approach in Methodology and Analysis. Technology Foresight, NSTDA, Bangkok, p. 87-93.

Martin, B. R., (1997), Technology fForesight as a Tool for Strategic Management, Managing Technology for Competitive Advantage, Ch. 2, Anderson, J., Fears, R. and Taylor, B. (Eds.), Financial Times Healthcare, London, p. 31-47.

Michael, M. (2001). Technoscientific Bespoking: Animals, Publics and the New Genetics. New



Genetics and Society 20(3): 205-214.

Mintzberg, H. (1973), The Nature of Managerial Work, New York: Harper and Row, pp 51-74.

OECD, (1996), STI Review No. 17, Special Issue on Government Foresight Exercises, p. 18.

Payne, A. and Frow, P. (2005) 'A strategic framework for customer relationship management', Journal of Marketing, Vol. 69 (October), pp. 36–81.

Payne, A. and Frow, P. (2006) 'Customer relationship management: From strategy to implementation', Journal of Marketing Management, Vol. 22, pp. 147–154.

Raman, P., Wittmann, C. M. and Rauseo, N. A. (2006) 'Leveraging CRM for sales: The role of organizational capabilities in successful CRM implementation', Journal of Personal Selling & Sales Management, Vol. 26, No. 1, pp. 84–98.

Schmitz, J. and Platts, K. W. (2004) 'Supplier logistics performance measurement: Indications from a study of the automotive industry', International Journal of Production Economics, Vol. 89, No. 2, pp. 215–284.

Simon, H.A. (1960), The New Science of Management Decision, New York: Harper and Row, pp 78-98.

Stein, J. (2002), Information Production, Journal of Finance, pp 124-187.

Tieh-Min Yen, Yi-Chan Chung and Chih-Hung Tsai (2011), Technology Opportunity Algorithm for ISO 9001: 2000 Customer Satisfaction Management Structure, http://scialert.net/fulltext/?doi=rjbm.2007.1.10&org=10

Wagner, C. S., (1997), Critical Technologies in a Global Context: a Review of National Reports. Technology Foresight, NSTDA, Bangkok, p. 147-178.

Wolff-Albers, A. D. and Ossewarde, M. J., (1997), Science and Technology Foresight: Philosophy, Principles and Practice. Technology Foresight, NSTDA, Bangkok, p. 21-36.

Yuthavong, Y., (1997), Strategic Directions for Science and Technology Development in Southeast Asia. Managing Technology for Competitive Advantage, Ch. 2, Anderson, J., Fears, R. and Taylor, B. (Eds.), Financial Times Healthcare, London, p. 97-109.

This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE's homepage: <a href="http://www.iiste.org">http://www.iiste.org</a>

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:** <a href="http://www.iiste.org/Journals/">http://www.iiste.org/Journals/</a>

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

# **IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library, NewJour, Google Scholar



























