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Diagnosis technology with the help of technology and projects to improve plant Spectacles (Case Study irrigation tape production of polyethylene in Bandar Abbas)

Mohammad Reza Karimi[a], Somayeh Bahrami[b]

[a] *Master Student of Industrial Management, Islamic Azad University, Qeshm, Iran.*

[b] *Master Student of environmental engineering, Islamic Azad University, Bushehr, Iran.*

Abstract

The description and diagnosis of the needs of manufacturing technology to improve performance. The main question in the study of the diagnosis, identify the problem and provide improvement projects aimed at development and organizational improvement for the right fit in one direction. This applied research to describe in terms of the time dimension is a cross-sectional study population of 20 employees of the plant located in the industrial city of Bandar Abbas is examined with the help of a questionnaire. Since Spectacles technology on four different component technologies, including computer technology, human ware, software and information organization software deals Therefore, this model is used to determine the gaps and problems in the validity conditions and results of the manufacturing unit and by offering planning software system design, improving the field of leadership and organizational culture, increasing the diversity of products Rahkahay improvement explain the factory.

Keywords: diagnose ,Technology Auditing Model , Improve factory

Introduction:

Diagnosis of an organization and business process requires empathy, sympathy and participation of all directors, officers and employees of an organization to examine and identify the real, massive and done fast. The main question in this research is that the effect of irrigation tape of polyethylene production unit in Bandar Abbas is and whether there are ways to improve plant performance with Lenovo. So, not enough to just produce anything, but cheaper and better goods and services, which leads to the failure of their competitors and leaving the economic field, is also important. In this competitive world with scarce resources and population growth if we do not have the technology we do not manage it well, we had a lot of problems. IT management enables competitive advantage in the market makes it possible (Jafarnejad). The use of models and methods, technology assessment that much time is needed to implement them, such firms are not accountable, in other words, technical managers and experts of companies and factories due to the experience gained and the mind able to limit the ability of companies in different areas of technology. It seems the perfect tool for verifying the subjective estimates, models and technology capabilities.

Experience shows that the models and methods that are employed in these factories must have two basic properties: First, simple and understandable, and secondly, in a short time and to provide an acceptable answer result (Tabatabaian). Technology capabilities in the industry including technical skills, managerial and institutional and integrating acquired knowledge and skills of the members of the firm over time. Innovation capabilities is only one aspect of IT capabilities. Technological capabilities all the way that an organization such as skills, learning of individuals, educational qualifications, the object technology in machinery and other blends to act as an organization. This process, along with frequent interaction between members, efficient information flow and decision-making and synergistic (Lal).

Diagnosis of intervention methods in organizational development and broad form of the activity is to discover the truth and is a prerequisite for organizational efforts. Since the aim of Organizational Diagnosis interact with systems such as the comprehensive and large companies, so a wider range of organizational development to be included and therefore in principle, in turn, is an intervention. This method as an important factor in development and organizational development for the true, proper management is designed to help remove blind spot (Higgins). This means that diagnosis is one of the important parts of organizational development, because it can split information on the different systems of an organization to lose (Beckhard, 1969).

the different technologies on society and its people have predicted and assessed. The technology assessment objectives and policies for the promotion of good outcomes and minimize the consequences of poorly controlled specifying (Jurisprudence artist). IT and business managers to evaluate it always has been a major challenge. Attention This is especially true in countries where most of those who are building technology, consumer it is necessary (Madder). In the case of research carried out various surveys carried out over the Atlantic as a diagnosis using the technology is not registered, So in the following cases in which the models under the diagnosis has been reported study Thus, the study presented by Mr. Mohammad Daneshvar and Ali border as a means for diagnosis logistics system; Saipa Diesel Company case study was carried out at three levels of management and organization of logistics

systems, information flow and physical flow is provided. In a study of the subject company's wood industry diagnosis model of enterprise modernization of industry (Approach EFQM) In 1384 by the Servant of Islam, and colleagues conducted Habibullah, after the cause of the issue and proposed solutions to the crisis were prioritized evidence including market research to identify market potential sales, market share, products and substitute products, etc. is, as well as senior managers and middle education, financial systems design, marketing and after-sales service, technical and development projects, educational assessment and implementation of quality management systems were discussed (khademi et al.).

In the summer, Mr. Hadi Nagorno rhetorical Management Journal article identification and diagnosis of supply chain management was studied and examined according to SCOR processes global model, then according to global best practices model SCOR, gap between fun13ctions and processes associated with the recognition performance and ultimately identify and prioritize improvement projects (ghare belagh.).

In a paper on the diagnosis results radiator's performance from the customer perspective there is evidence of problems in the areas of effectiveness, efficiency, productivity, innovation, functionality and quality Anttaf that led to the current practice of selling prices and product mix sent were identified and were then separated condition (mirabi et al.). It is one of the main factors creating constructive change or improve performance, organizational diagnosis is to identify problems with organization and determine the root causes of them to make way for the design and development of effective strategies to solve it has been paving and improvement and organization on the path to prosperity and development to be. The study is detailed in-depth diagnosis of the industrial unit faces (khademi et al). The aim of the project presented diagnosis irrigation tape of polyethylene production unit located in the city of Bandar Abbas in Hormozgan province are using the model.

Theoretical basis of research

The most important factors in considering a diagnosis unit, gathering information about the achievements of the past few years, which in this study to assess the achievements of the various dimensions of effectiveness, efficiency, productivity, quality and profitability; three - P to explain the above is selected. This model, as shown in Figure 1 contains 5 words: productivity, profitability, performance, effectiveness and efficiency of this model is expressed in how these cases are linked. Center efficiency model - P is a clear operational definition of the ratio of the output value (ie, the number of products which have been produced according to its attributes and correctly) on the input value (ie, all of the resources used in the conversion process have taken).

Profitability is also a kind of relationship between input and output, with the difference that influences the price as well. Performance like bangs on performance, including profitability and factors other than price, such as quality, speed, timely delivery and flexibility. Effectiveness also focus on the output and efficiency of the operation of the input (ie resources) in the conversion process and production (Tabriz world &Rahimi).

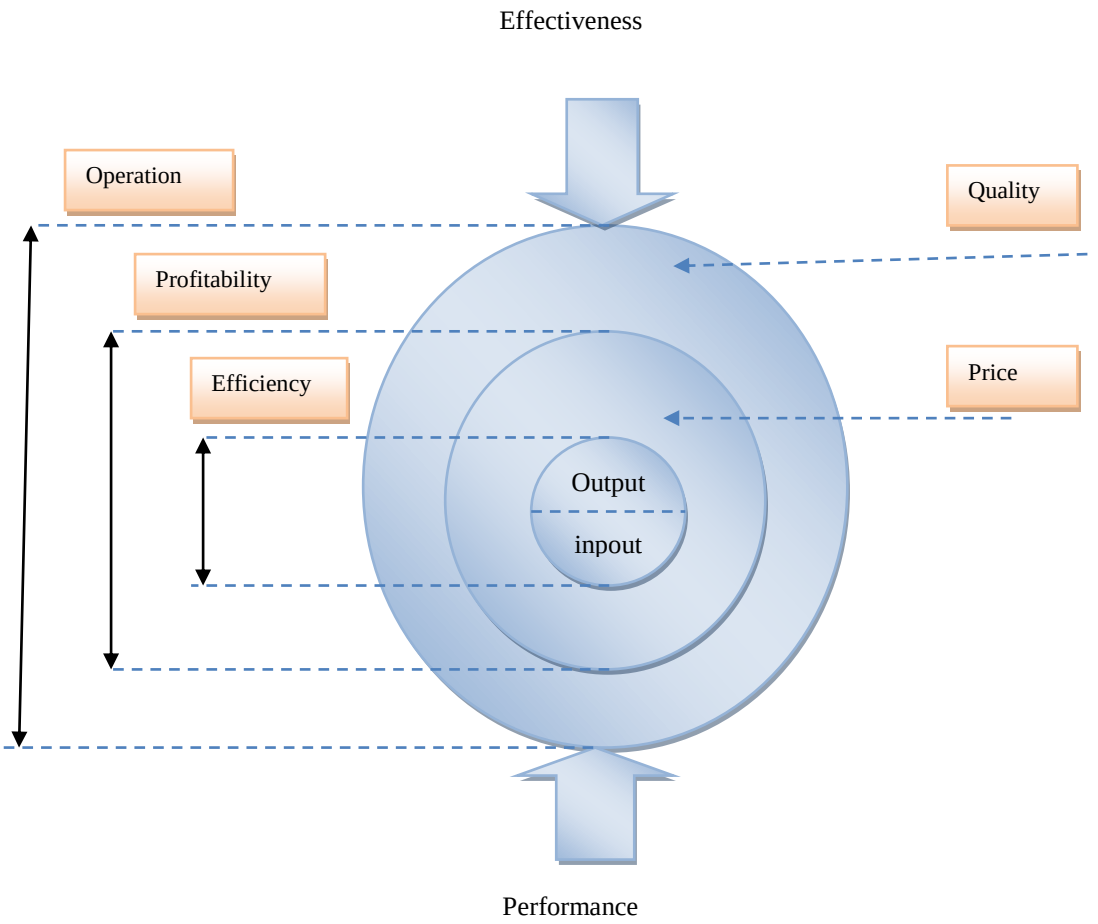


Figure 1: The Three P

Research Background

This article aims to provide a design fault finding irrigation tape of polyethylene production unit located in the center of Bandar Abbas in Hormozgan province using the model.

Research methodology

Manufacturing unit of study is a manufacturer of polyethylene irrigation tape-based industrial city of Bandar Abbas has been studied in this paper. This research is applied and the target audience, research is descriptive in terms of the time is considered a cross-sectional study. To collect and analyze the data in this paper, in addition to the library of field studies have also been used.The IT unit using Spectacles studied and analyzed the technology. This method is quantitative and scientific literature focuses on various aspects of technology that results show the validity of the study. The population in this study, 20 employees from different parts of the plant that information through questionnaires .Manpower has taken a different part of the calculation of this questionnaire will be used for more efficient diagnosis.

Research tools

Analysis of manufacturing technology using the tools of the Atlas technology research.

The Analysis of Data

This method is quantitative and scientific literature focuses on various aspects of technology that results show the validity of the study. The population in this study, 20 employees from different parts of the plant that information through questionnaires .Manpower has taken a different part of the calculation of this questionnaire will be used for more efficient diagnosis

Research Findings

After taking into account net income during the last three years of the study unit the following was achieved: the production unit of study in terms of profitability in a favorable and So there's a good efficacy in the products and because your productivity is the effectiveness and efficiency of the production efficiency is also favorable. of performance dimensions must be stated with regard to the lack of working remarkable ability to purchase raw materials For factory and final delivery to the customer Sometimes may be delayed or may not be possible production unit . Therefore, increasing the performance of the unit on the net profit of the plant increases. Accordingly, and in order to increase performance studies should be evaluated technology necessary to explain Is to evaluate the technology in the industry and firms, several models have been proposed that in the majority of cases and common definitions and basic concepts are the same About. Table 1 shows various models of technology assessment based on two dimensions: types of functions and application areas, shows (azar et al). At the end of the diagnosis due to the fact that, the main characteristic of technology is that Only hardware and equipment is included and the size and capabilities of the different components of an organization's core technology includes a set of distinct skills (the organization's human capital), organizational routines (which runs at the corporate level) and specific assets (technology, advanced manufacturing, information systems, computer-assisted manufacturing, etc.) that underpin the organization's competitive advantage (shahi et al.) . So with this in mind that different parts of an organization's IT Spectacles examined the technological gap determines the diagnosis technology is selected.

Table 1: Classification of views and models of technological capability evaluation

Models provide a solution for catch	***Models to determine the causes of the gap***	***Models to determine the technology gap***	***The practicalities*** / ***Application Areas***
Fa models, model management technology needs, needs assessment model, model Lin, Garcia-Rvla model,		*IT management model needs*	*Its technological capability and technology assessment firm-level product*
	Lindsay model, Ford	*Porter's model, the Panda and Ramanathan*	*Its technological capability and firm-level assessment process technology*

model management information systems science and technology		*Spectacles Technology*	*Assessment of technological capability in the Frabngahy*

Spectacles in technology, software and hardware technology contains two aspects have been considered and more detailed division, it is separated into four categories: physical and it can be placed where IT resources (software engineering) called the man who sits in the technology and furniture can be capabilities (human application) called the document where it is located and can be facts (data software) called the technology to be applied to resources Natural resources are becoming in the process the presence of all necessary IT components and no industrial operations are unthinkable without all of them with the necessity of each component in the manufacturing process, as each of them is different (Atlantic Technology) So it can be said that the organizational structure of its technology and the technology driven (enterprise software) call. Finally, it can be said, in the Atlas IT, technology, machines and technical equipment or technology to four overall level tools, software or human abilities and human skills, technical knowledge or information, software, software to organize and manage organizations split. The computational performance of each of the 4 components of IT technology content is calculated.

In order to calculate the share of production technology in the software, the different stages of production was determined for each stage indicator of the complexity of operations, the parameters of the production process, moving production methods, regulation protection standards quality as it is determined. For each of the indicators considered possible cases compared with An authentic industrial units in the industry (in the world) were scored between zero to ten, and the mean scores were calculated for each stage of the production process for each stage based on the value of the machinery and at the end of each stage to determine the weight of fan 1 was calculated by the formula:

$$Ti = \frac{1}{9}\left[LL + \frac{ST\ (UL - LL)}{10}\right] \qquad T = \sum TiWi$$

The relation 1: X = lower software complexity fan, UL = upper limit fan application complexity, ST = average scores, wi = weight of the stage, Ti = technology is software. After calculating the average index of the machinery and technical equipment or technology equipment and software was evaluated levels of technical complexity. Then, according to the mean, high and low complexity and application of technology in the context of the company's technology is presented in Table 2.

Table 2: Fans share in the technological content software

T= TiWi	***T Applications) of (Technology***	***Wi***	***UL***	***LL***	***ST***	***Title***

0/69	*0/69*	*1*	*7*	*5*	*6/05*	*Experience*

To calculate the contribution of technology software product, first-class workforce, including the workers, supervisors, engineers, and so forth. Then, for each category of indicators relating to factors such as innovation, willingness to work together , responsibility etc. were determined. Then, the questions in order to quantify these factors and industrial units through a questionnaire distributed by the personnel of the scoring was among them. The score of between zero and ten variable is then determined for each category mean Again refer to the table-top and down to the complexity of the software capabilities of each class human resources were identified.

$$Hi = \frac{1}{9}\left[LL + \frac{SH\ (UL - LL)}{10}\right] \qquad H = \sum HiWi$$

About 2: L = low complexity of human resource capabilities, UL = upper limit of the complexity of human resource capabilities, SH = average ratings, wi = the weight of each class, Hi = man is software.
To assess the humanitarian situation according to criteria provided by the three main indicators used in the model, and 12 positions in the factory has been questioned and analyzed. Then the average index of human abilities, skills and level of complexity of the application review. Company human resources through innovation and creativity index Tendency to success, attitude to work, tend to be serious, risk capacity and inclination towards punctuality and class human resources in staff and production was analyzed and presented in Table 3. The share of software technology.

Table 3: Share of content software technology

H= HiWi	***H (The human contribution App)***	***Wi***	***UL***	***LL***	***SH***	***Title***
0/57	*0/57*	*1*	*6*	*4*	*5/77*	*Experience*

Then share information on the application of industrial units were not calculated in the different departments of the same, according to the information in order to determine the software, originally indicators such as recall information, to-date information, network and information systems and so determined and studied by experts plants scored.

$$I = \frac{1}{9}\left[LL + \frac{SI\ (UL - LL)}{10}\right]$$

About 3: LL = lower software complexity information, UL = upper limit of the complexity of software information, I = information, software, SI = average scores determined the application of the

information., that the information system is now being questioned. The next index is comprehensive company data and information whether the documents associated with each of the components of the production company.

Table 4: Share information on the content of application technology

I= IiWi	***I Share) software (information***	***UL***	***LL***	***SI***	***Title***
0/3	*0/3*	*4*	*2*	*3/92*	*Experience*

About 3: LL = lower software complexity of the organization, UL = upper limit of the complexity of the application, O = organization, software, SO = Average software is organization. The evaluation study of index management and organization unit, leading to motivation, involvement in decision-making, innovation, space, orientation, properly applied, are being used. Then, according surveys conducted in the context of the review of the plant technology is Table 5.

Table 5: Share of content software technology

O= OiWi	***The share of)O (software***	***UL***	***LL***	***SO***	***Title***
0/43	*0/43*	*5*	*3*	*4/56*	*Experience*

Now the tables with data analysis software to assess the level of complexity of the technology, human complexity level assessment software to evaluate the level of software complexity of information, assess the level of complexity of the pairwise comparison of software and technology components, the following results were obtained:
Software = 69/0 technical complexity level
Software complexity level man = 57/0
Application information complexity level = 3.0
The complexity of Software = 43/0
the ability to deliver the goods to the customer due to lack of liquidity and lack of adequate working capital problem. So, these firms are faced with the dilemma gap process and slot operations. Finally, after a review of studies on the basis of documentation available at the plant and interviews with company executives, effects and was below weaknesses.
1 - lack of proper planning on the principles of planning and inventory control
2 - lower diversity in domestic markets
3 - There is a lack of the necessary integration of production schedules
4 - The use of the software program and consider all parameters

5 - weaknesses in the use of flexible production planning
6 - Lack of information and documentation system
7 - low job security staff
8 - instability in the efficiency and productivity of employees
9 - Lack of opportunities for learning and skills at work

The main cause of the gaps in the major problems related to production are: lack of management equipment, a method for measuring the amount of waste for each product and consequently, not finding a way to reduce waste, lack of maintenance,

Next, the strategy will not be operational. Given that the strategy processes must be developed to comply with the above strategy, the company has no points. Fully have been separated. On the other hand the lack of accurate statistics and even approximate market share of the company's total market share, lack of statistics and indicators

For assessment of old and new customers in a period of major complications is unit. There mechanism to communicate with the client to determine the needs and expectations of his lack of customer complaints, product returns resulting lack of documentation by a certain strategy for customer satisfaction and continuous measurement of market share and taking corrective actions has not been developed . The high price and the lack of necessary products in the field of product sales, the importance of such a strategy for such industries has increased. not formally measure customer satisfaction and long-term horizon without vision will not go anywhere.

Conclusion:

The diagnosis will always mixed results in a study as to provide a method for diagnosis logistics system; Saipa Diesel Company case, the bullwhip effect, weak management of logistics costs, weak information systems support and low turnover inventories component effects are considered to be weaknesses in the information systems are aligned with current research and in other areas the problem is different. Wood and Technology investigated in a study using a model of diagnosis company's industry modernization (approach EFQM), lower efficiency and staff productivity, lack of clear direction for growth and improvement at the organizational level, the lack of opportunities for learning and More skill at work, low job security staff, low customer satisfaction, lack of cost accounting to sales, the problem is the lack of documented information that was not in areas including information systems, documentation, low job security of employees results each identical and in other conflicts. Identification and diagnosis of supply chain management is another study whose results indicate a problem such as low market share in neighboring countries, low variability in domestic and foreign markets, lack of criteria to identify the suppliers, despite the weakness in the identification system new suppliers, there is a lack of criteria for selecting suppliers and relying too much on the past performance criteria of price and supply, poor use of flexible production planning, lack of integration is necessary at the time of production, lack of use of appropriationsAll parameters, weaknesses in the use of production scheduling is flexible in one direction. The results and their comparison with the effect of this study showed that lack of documentation, information sharing or lack of proper intelligence software.

Practical suggestions:

Continued improvement projects offered and recovery, system design planning application is the first proposal to fix problems in the current system of resource allocation, production planning and resource

leveling is not used. Also due to the weakness of the current system allows integration of system software programs are not available, it appears that the software system design

Software for production planning, taking into account the coefficients of consumption of raw materials, manpower requirements, the technical parameters of production, availability of material and inventory of raw materials and production requirements (materials, manpower, required capacity etc.) by unit Planning is an effective step to recovery. It is expected that the project achievements of the mechanization of production planning and raw material requirements, lack of expert-programmed by mistake, accelerate performance, in order to determine the optimum time for primary materials can bring.lack of stability, efficiency and employee productivity, lack of documentation, information systems used. By doing this project conditions

Low diversity in domestic markets, weakness in the use of flexible production planning and instability is high in efficiency and staff productivity. The third and final solutions and improvement projects, improve the field of leadership and organizational culture, leadership means that leaders create a vision and mission of the organization and to facilitate access to and values required for long-term successLow job security of employees, lack of stability in the efficiency and productivity of employees, lack of opportunities for learning and skills in the work of improving the condition that the field of leadership and organizational culture will be on hand.

References:

Jafarnejad, A., Management Development, Second Edition, Tehran, Tehran University Press

December, just, barley, Sajjad, Zngvyy race, Abuzar, research and development strategy using quality function deployment, technical approach to market pull, Industrial Management Journal, Vol. II, No. IV, 18-3

Legal charismatic Nasser, management of technology, first edition, Vol. I, Tabriz, publications afterglow

Tabatabaian, Seyed Habibollah, to evaluate the ability of the enterprise-class technology, Tehran, Arian

The Servant of Islam, Habibullah, smooth section, Mqtdalanam, smooth section, Fouad, the company's wood industry diagnosis using the company's industry modernization (approach EFQM), Journal of Agricultural Science, Volume XI, Number IV, 199 -189

Heidari Nagorno Gorge, conductor, identification and diagnosis of supply chain management, Journal of Management, Vol. VI, No. XIV, 11-1

Lal Sanjya, IT policy and encourage the market, the Office of Industrial Policy Center, Sharif University of Technology

Mirabi, Vahid Reza, single truth, glory, Shaykh al-Islam, Muhammad, diagnosis results radiator's performance from the customer perspective (Case Study in Iran radiator), Journal of Geography, Volume III, Issue I,117-89

Higgins, James M., 101 entrepreneurial problem solving techniques, creative, translation Mahmoud Ahmad Dariani, Eighth Edition, Tehran, Amir Kabir Publications

Kingdom, Mohammad Kazem, technology assessment by the Atlantic and to provide guidelines for improving the technology in Yazd Steel factory, technology and innovation management conference PNU Garmsar, Azar

World Tabriz, Akbar Rahimi, Mohammad,., approaches to production and operations management in assessing and improving business processes, printing, Tehran, enterprise business publishing

PBO, Atlas Technology: general framework based on technology planning, printing, Tehran, Press Program and Budget

Rnasy, F., small and medium enterprises assessment, Tehran, Industrial Management Institute

Beckhard, R. (1969). Organization Development: Strategies and models. Reading, MA: Addison-Wesely