

APPLICATION OF ROVIS IN HUMAN RESOURCE APPLICATION IN THE GULF REGION**Peeyush Tewari***Institutional affiliation: Birla Institute of Technology, Mesra, Ranchi, India**E-mail: peeyushtewari@gmail.com***Boby George Jacob***TUV NORD ME – Abu Dhabi & Qatar**E-mail:bobygjacob@gmail.com***ABSTRACT**

Decision making in many situation is a critical factor in growth and sustainment for any national or international business situations. In this paper we conceptualize a new theory names as ROVIS which can be applied as a new business concept for decision making, which can be universally applied to all management related spheres. The concept focuses on thought - rationalization before even considering the thought as a decision. It interprets the Critical X Factor or the Critical Success Factor and then employs optimization models to maximize the chances of success. The Critical X Factor is converted as the Optimal Decision Model to maximize success conditions. Then using the surrounding environment and the risk factors involved one can identify the critical success factor(s) and develop it to the maximum level to achieve surety of success which is predetermined which is optimization stage. Then the developed success factor is re-employed in the process and tested in simulated conditions replicating the actual environment and risk factors and then verified to see if the critical success factor(s) produces the desired results otherwise we incase of a deviation from the desired level of success due the unsatisfactory performance of the identified critical success factor(s). Then the factor(s) is subjected to further improvement and development and retested until desired results are achieved. Once the desired results are achieved in simulated environment the critical success factors are now subjected to actual environment with actual risks. Based on their performance in real conditions, the results of the satisfaction are evaluated and compared against the computed results of the simulated environment (replicating the actual environment & risks) keeping in mind that the difference of the results cannot exceed the accepted tolerance level which attributes to the instability of the economy or uncontrollable factors bringing results within the tolerance levels. The ROVIS theory also emphasizes making the right decision at the right time in the right situation which would minimize over-spending occurring out of short-sighted business decisions or irregularities in decision making. Though industries vary in operational level, we find that, the ROVIS Theory is definitely a evolving management concept which focuses on strategic thinking through rationalized approach and can be a universally acceptable role model in all industries globally. A brief example explains the usability of this theory in the Gulf Business environment.

Keywords: *Decision making, ROVIS, Critical Factor,*

1. INTRODUCTION

The ROVIS Theory is a new management concept which engulfs the use of various already existing Business Improvement or Re-Engineering concepts. The ROVIS theory addresses the need for developing a rationalized approach while planning or developing new businesses or while planning business improvements or re-engineering. The ROVIS Theory in principle is a strategic approach to business thoughts and shall result in making rational decisions based on available or acquired resources and timelines. There are things that we need to rationalize today to balance the tomorrows. ROVIS Theory focuses on maximizing customer satisfaction to maintain reputation and profitability and to achieve maximum customer satisfaction the ROVIS Theory identifies the Critical X Factor which is a value adding factor which satisfies the customer and develops out of that an Optimal Decision Model which enhances the success chances to maximize the outcome of customer satisfaction which in-turn maximizes profitability and maintains reputation in the market. Reputation maintaining leads to long-term profitability and therefore businesses adopting ROVIS Theory will remain profitable for a longer time and shall systematically adapt to changing conditions. Now we give terms of ROVIS in more detail and explain them.

To understand the application of the ROVIS theory, we expand the ROVIS i.e. R – RATIONALIZE, O – OPTIMIZE, V – VERIFY, I – IMPROVE, S – STABILIZE. We present the underlying structure of our study,

depending on the literature about both the importance of international situations in business developments by good decision making verify that it fits in to growing situations of decision making in today's highly competitive global work environment.

2. LITERATURE REVIEW

The ROVIS Theory aims to emphasize following a rationalized approach for performance enhancement see Bacal (1999), Cokins (2009), Parmenter (2007), Daniels et. al. (2004) &, Spitzer (2007) while making decisions. It can be a complimentary to Six sigma technologies or bridging the gap in the start of Six Sigma (2006), Brussee (2004), Gitlow (2005), Pande et al. (2002) & Pyzdek (2001) used for performance enhancement. Statistical techniques Ghosh (1996), Spiegel (1998), and computer based packages as SPSS etc., are a boon to this theory.

3. THEORETICAL BACKGROUND

ROVIS Theory focuses on maximizing customer satisfaction to maintain reputation and profitability and to achieve maximum customer satisfaction the ROVIS Theory identifies the Critical X Factor which is a value adding factor which satisfies the customer and develops out of that an Optimal Decision Model which enhances the success chances to maximize the outcome of customer satisfaction which in-turn maximizes profitability and maintains reputation in the market. Reputation maintaining leads to long-term profitability and therefore businesses adopting ROVIS Theory will remain profitable for a longer time and shall systematically adapt to changing conditions. Now we give terms of ROVIS in more detail and explain them.

3.1. R-Phase

Every business decision has causes and effects attached to it. It is very important to make decision based on a Cause-Effect Relationship so that the profitability and the stability of the organization are maintained in the long run. Often, there is a tendency to make windfall gains that show at times rosy pictures but if action is not taken to sustain the profitability level then the longevity and stability of the company is hampered. The Demand and Supply factors play an important role in developing a Cause-Effect Relationship for any business decision. These factors are either customer-driven or where there is monopoly, these are organization-driven. It is a must that business decisions are promoted and made through scientific reasoning and factual approach rather than making decisions on an impulse.

Customer and the organization are basically both sides of the same coin and hence rationalization of a decision should involve the mutually beneficial factors while making decisions. In the R Phase, the management of any organization are expected to decide on decision plans through rationally but depending upon the use of relevant statistical, financial or optimization tools to derive at mathematically proved decisions so that given all things remain the same, the organization can be profitable and remain in that level for a longer period of time. The R Phase is the decision planning stage where the organization shall evaluate all necessary factors and then arrive at the CXF to determine success of the decision. Keeping in mind that the Key Deliverable of this stage is to identify the CXF and prioritize them if there are more than one CXF, the following steps may be undertaken.

- (i) Generate idea for Decision Making through Market Research, Brain Storming, Creative Thinking, & Trouble-Shooting and Evaluate the idea based on a Cause-Effect Relationship Diagram
- (ii) Then try to arrive at the probable Root Causes for determining the Customer – Organization Relationship (Customer includes internal and external)
- (iii) Then classify these causes as Independent Dominant, Dependent Dominant, Independent Supportive or Dependent Supportive
- (iv) Estimate the Dominant Factors and their probability of being the CXF based on experience and knowledge
- (v) Evaluate these selected factors using Design of Experiment, mathematical optimization models, statistical tools or financial tools to prove that the selected CXF is true (Hypothesis Testing etc)
- (vi) If the Hypothesis is found true and a problem or a gap exists then proceed to the O Stage

If an organization spends sufficient time to rationalize their decisions then, many waste generation and non value adding activities can be eliminated and focus of improvement or development can be concentrated on the critical and value adding activities that is profitable to the organization.

3.2. O-Phase

After having rationalized the decision to be made and having found the CXF, the next step would be is to optimize the CXF to improve the chances of success. Of course, these chances of success would defer from case to case and so during this phase the optimum model derived should also be specifically validated. Optimization of the CXF

should look at all areas of business that it relates to and shall not just be a statistical approach. Resources – man, machine, money and methodology shall be made an effective blend as required to increase the success chances of the CXF. The O Phase is still not the implementation phase but the end stage of Planning. It is the finalization stage prior to actually deploying the decision plan into action. The O Stage evaluates decisions on two main categories

Based on Past Data Analysis

Based on Futuristic Data when Past Data are not Available such as;

Based on Extending the Current Scenario for a Definite Period.

Based on Trend Analysis Through Market Research.

- Improvement and Re-Engineering Decision Making would normally use categories (i) & (ii)a.
- (ii)b is used for New Product / Concept Development Decision Making.

The CXF in the R Phase promised a certain level / chances of success but through optimization the CXF has now become the Optimal Decision Model (ODM) which promises maximum success level / chances. It is very important that the level of success be made measurable so that one can understand the shift in the success rate. Now ROVIS theory is expressed in more elaborative manner.

3.3. V-Phase

After completing the planning stage, the next step is to implement and find out the actual results and compare it against the computed results. The actual results cannot be lower than the computed results as these results have been computed taking into consideration all given factors. An Optimal Decision Model cannot be called so if it does not generate the results which are close to the actual results in a given condition and within the tolerance limits. In the V-Phase the Key Deliverable are verified ODM because it is during this stage the performance of the ODM is understood while comparing between actual and computed results. The following steps shall be carried out in this stage

(i) Implement the ODM as given and develop a monitoring system

(ii) Monitor at given intervals and statistically, mathematically or financially analyze the results

(iii) Compare between the actual results and the computed results;

a) If the actual results are equal or higher than the ODM's computed results, then the ODM can be accepted

b) If the actual results are lower than the computed results but within the tolerance levels then this ODM needs to be improved

c) If the actual results are even lower than the tolerance levels then this model is not suitable for the case in study and should be scrapped or re-engineered right from the beginning

When considering ODM for process improvement cases, then it is always advisable to have an online monitoring system so that the deviations can be identified easily and effectively controlled from going below the tolerance levels.

3.4 I-phase

The I Phase refers to those ODMs that did not deliver actual results equal to or higher than the computed results but fell within the tolerance levels. The tolerance levels can be based on confidence level determined as acceptance criteria for results to actuate to accept the ODM. The I Phase is a two-fold Phase which carries out a variance analysis improvement phase and then introducing the model again to re-verify the performance of the ODM to meet the computed results. In other words, the I Phase also includes a V Phase to ensure success of the improved ODM. The Key Deliverable of this stage is an Improved ODM which ensures actual results to be not less than the computed results. The following steps are undertaken in this stage

(i) Analyze deviations of the actual results from the computed results

(ii) Analyze these deviations from a regression point of view that is work from the result to the decision and identify the probable failure causes from the key result areas (KRA)

(iii) Evaluate to see if the conditions given remained the same when ODM was implemented

(iv) Isolate the probable failure causes and analyze their key behavior areas in response to the success factors then statistically prove their correlation to the failure

- (v) Optimize their success levels using statistical , mathematical and financial tools
 - (vi) Simulate to achieve the computed results
 - (vii) Implement the ODM and then verify the actual results
 - (viii) The actual results should now be above the computed results, if not repeat step (i) to (vii) until favorable results are obtained
 - (ix) Develop control plans to ensure consistency of favorable results
- The I Phase further crystallizes the chances of success of the ODM and reaches the model to a six sigma level (99.99% perfection).

3.5 S-Phase

On completion of the I Phase, the next objective is to ensure that this ODM is consistently performing and giving the results as promised as long as the other conditions remain unchanged. The S Phase emphasis on consistency management and therefore addresses the requirement of the re-validation of the ODM based on changing conditions which also includes economic factors. The Key Deliverable of the S Phase is a Stabilized ODM which assures the achievement of the promised level of success over a period of time as given in the O Phase. This Phase also is a two-fold approach and focuses first on setting up policies to establish the pattern to be followed and in the second fold, identifies the change management requirement arising out of changing factors that affect the stability of the ODM in producing the promised results. The following steps shall be undertaken in this stage

4. RESEARCH METHODOLOGY

We present the phase wise methodology of the Rovis in a table given below briefly and then in Table -2 the exact working of the same.

Table 1. ROVIS Matrix

Phase	Deliverable	Measurable	Tools
R	CXF-determined	CXF Attributed Success Condition or Level	Brain Storming, Creative Thinking, Market Research Inferences, Hypothesis Testing, DOE, Statistical Analysis, Financial Analysis – BEP, Funds Flow, P&L
O	CXF-converted to ODM	Maximum Success Condition or Level Attainable and validated under given conditions	Market Research Inferences, Hypothesis Testing, DOE, Statistical Analysis, Financial Analysis – BEP, Funds Flow, P&L, Mathematical Optimization Models, FMEA
V	Verified ODM	Measurable in O achieved or deviated	Monitoring Systems, Analysis of Variance, DOE, Financial Analysis – BEP, Funds Flow, P&L
I	Improved ODM	Deviations found in V are corrected to achieve the Measurable in O	Monitoring Systems, Control Plans Development, Statistical Analysis, Financial Analysis, FMEA
S	Stabilized ODM	Consistency & longevity assurance of achieving the Measurable in O	Control Plans Implementation, Audits, Statistical Analysis, Financial Analysis

5. RESULTS WITH TABLES

A Prestigious Company based in the Middle East – Code Named as ABC Extrusions, decided to enhance its manpower requirement in the field of Production. The management decided to hire Graduate Engineers to fill up the position of Production Superintendents and Production Supervisors. The case was forwarded to the HR Department and the HR Manager along with the technical managers, moved to India for a period of 5 days to recruit. The HR Manager having received information of the required candidates applied the ROVIS Theory prior to going for recruitment. The following Table 2. steps describes the ROVIS application, which gave rise a better HR Solution for recruitment of the Specified Manpower.

Table 2. HR case study explained in ROVIS matrix

ROVIS	Description
Rationalize	<p>The following points were to be rationalized to find the Critical X Factor: Career Progression of the new recruit, Salaries & Grade to be assigned, Job Description / Role, Loyalty.</p> <p>Based on the above the HR Analysis showed that the promotion to a higher grade would only be possible after a minimum of 8 to 10 years. The reason being there are two seniors managers who are still not at the retirement age holding these portfolios. Therefore, both categories need to wait as given above before they can move to the next Grade Level.</p> <p>The economy being in recession, the salary scales for the post of Production Superintendent would be around US\$ 2000 to US\$ 2500 and for Production Supervisors would be around US\$ 1500. The given salaries are acceptable to those holding Diploma Certificates than those that are Graduate Engineers. Also the market value comparing between Diploma & Graduate engineers shows at least a 15% increase for the latter (Information sourced from various recruitment agencies in India). Therefore, both Diploma & Graduate Engineers need to have the said Experience within the same Industry.</p> <p>When looking at the Job Description/Role, a minimum of five years experience is required to understand the Extrusion Process for both Graduate & Diploma Engineers. Also this experience is the minimum required time needed to understand scheduling of orders based on the capability of Extrusion Press & Extrusion Dies for Production Superintendents and the Execution part for Production Supervisors. Therefore, whether Graduate or Diploma Engineer, the portfolio remains the same and so is the requirement of experience.</p> <p>Understanding the Competition in the Extrusions Field, it is seen that candidates with Graduate Engineering Qualifications, remain for a shorter period of time with the Organization than with the Diploma Engineers. The reason being the Graduate Engineers look for faster Growth Rate in the Industry than the Diploma Engineers and their absorption by competitors are at a higher rate. In other words, Graduate Engineers have a better market value than Diploma Engineers (Information sourced through various employment agencies in the Middle East). Therefore, the Diploma Engineers may stay longer with the Company than the Graduate Engineers.</p> <p>Critical X – Factor</p>

	<p>Considering the above points specifically looking at point 2 & 4 it would be better to hire Diploma Engineers than Graduate Engineers for the said positions. Based on the Job Description/Role, the Criticality of the Job in the case of Production Superintendent revolves around his experience in successfully scheduling and thereby obtaining high recovery and minimal rejections. His competence level should give him the ability to have a minimum of 80% recovery and less than 2% in-process rejection on an average as specified by his Line Manager. Therefore, the following can be considered as the Critical X-Factor in the recruitment of Production Superintendents; i.e. Diploma Engineers that has proven track record obtaining 80% recovery and less than 2% in-process rejection on an average.</p>
<p>Optimize</p>	<p>Optimizers can be years of Experience in the Industry More the years of experience better facilitated will the candidate be in subject Matter Knowledge (Extrusion technology, Press Functioning & Capacity, Die Applicability), Trainings (Attended, Provided) , Skills (Planning i.e Manpower Planning, Manpower Allocation, Overtime Minimizing, Production Planning (Raw Material Allocation, Order Allocation, Analytical ,Customer Satisfaction Analysis, Delivery Scheduling, Employer Satisfaction, Waste Management Press Die Order Combination) Evaluation: Certificate Verification, University, Marks, Case Study with Simulated Orders for a Month, Evaluate Order Pattern, Assign Orders to Press, Evaluate Die Capabilities , Allocate Manpower, Calculate raw material consumption, Calculate wastages, Contingency Plans Personal Interview Results Those that had 8+ years of experience gave planning & delivery Schedules with well though contingency plans Those with 6-8 years gave plans & delivery schedules but the contingency plans were not really adequate Below 6 years of experience – failed to deliver as desired</p>

<p style="text-align: center;">Verify</p>	<p>The company permits as per the governing Labour Law, 6 months of probation prior to Job confirmation. Therefore the selected candidates were assigned assisted portfolios to see their practical approach to the Extrusion Plant. After 3 months, the performance analysis showed as follows: 4 out of 6 candidates performed systematically and hence could be assigned tasks in the designated portfolios immediately The remaining 2 had to undergo further training as they were not used to the Extrusion Presses that were in the organization. These were different from what they worked in.</p>
<p style="text-align: center;">Improve</p>	<p>Based on the above findings, it was decided to develop a training module for all new recruits wherein they are well versed with the presses and the Dies that are to be operated. This training module was prepared in conjunction with the Press Manufactures and also the Senior Managers handling the system. Where required, the recruits shall also attend other training programs available in the city to enhance their knowledge and expertise.</p>
<p style="text-align: center;">Stabilize</p>	<p>Having found that the above produced acceptable and desired results, the competency requirement for the position was determined as sufficient with employing Diploma holders rather than having the Graduate Engineers</p>

6. FINDINGS

The theory applied on a particular model was found on the basis of data collected from a very big industrial group recruitment process. Keeping various constraints in mind, the performance of the theory could be deemed satisfactory. The intention of this research was to apply a new decision making concept that throws light on its applicability to international profile on the decision making in Gulf region. The theory is successful to attain this objective. It was successful in predicting the effect of the specific factors in the managing the decision for a human resource operation. Thus it was partially successful in giving the answer to the research question.

7. CONCLUSION AND SUGGESTIONS

The HR example explained above shows very clearly the benefits of ROVIS Theory and shows that it promotes optimization decision models with the focus on maximizing the success conditions that the Critical X Factor offers. The concept when applied in more related management fields provides opportunities for maximizing success levels based on statistical, mathematical and financial approaches. ROVIS has therefore shown that it substantially improves rationalization of business decisions based on factual approach, analyzes business thinking and rationalizes the thought prior to actually defining it for decision making, formulates a strategic approach to decision making, evaluates the opportunity for maximizing success levels by optimizing the Critical X Factor, provides scope for continual improvement process, evaluates actual performance against computed performance and thus giving room for further improvement in results, involves personnel at different levels of operation in the company, cost effective and hence promotes a win-win condition, which ultimately improves customer satisfaction and profitability in Gulf Region.

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