

# THE WHEEL OF TRANSFORMATION

## A MODEL FOR DEVELOPING WORLD CLASS ORGANIZATIONS

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**T**HE world is in the process of an unprecedented transformation from fragmented societies to integrated global environment. The organizations are becoming global and the management MANTRAS of the twentieth century are losing their relevance. New MANTRAS are emerging for managing the world class organizations of the third millennium. The Worldwide Manufacturing Competitiveness Study (Moskal 1997) found a 2:1 difference in performance between the 'world-class' plants and the rest. This 2:1 advantage appeared over a wide range of measures including productivity, inventories, and schedule variation. The objective of our research is to develop a model which can be used for the transformation of business organizations to a world class organization using information technology as an important tool in this transformation.

Various techniques like Just-in-time (JIT), Total Quality Management (TQM), TPM, BPR, et al. have facilitated the globalization of organizations using information technology as the basic tool. One such tool, that has gained international presence amongst the business organizations in recent years, is Enterprise Resource Planning (ERP). More than 60% of Fortune 1000 companies (Start Magazine 1999) have already implemented ERP and many others are in the process to implement ERP. All over the world, over 20,000 companies spent more than \$13 billion on ERP last year. Despite such high stakes in implementing ERP, the satisfaction level is still quite low as has been shown by Gartner Group survey (Start Magazine 1999) of more than 700 U.S. companies and more than 600 companies in nine European countries. The study asked executives about post-implementation satisfaction. From those who responded, 55% were somewhat satisfied, 29% rated their satisfaction as neutral, 10% were very satisfied, 4% were somewhat dissatisfied, and 2% very dissatisfied. More than half (55%) said their ERP project was delivered "about as expected," 32% said it was "later than expected," 10% said the project was dropped, and 3% said the project was delivered "sooner than expected."

This low level of satisfaction prompted us to explore the possibility of developing a new model for businesses to make themselves global and meet the world standards. For that a detailed empirical study was undertaken which hypothesized as under:

**Hypothesis 1:** There is no change in the expectations of managers from ERP in the last five years.

**Hypothesis 2:** The critical success factors of ERP implementation have not changed in the last 5 years.

**Hypothesis 3:** The critical success factors for making an organization world class are constant.

We also examined the various aspects critical to transform organizations and their impact on the organizational culture.

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## Research Methodology

The study conducted an international survey by creating a resource site on the Internet for twelve months (September 1998 to August 1999) based on structured questionnaire. One part of the questionnaire was similar to a study (Goel 1998) conducted in 1994 to measure the shift in the perceptions about key parameters of ERP implementation and success including the technological issues.

The sample consisted of 696 managers (marketing 206, finance 150, IS 165, Others 175) from different parts of the world. We included countries like India, USA, China, Russia, Ukrain, Canada, Australia, Japan, Brazil, West Indies, Nigeria, et. al. The survey also conducted personal interviews of some selected people in India.

## Discussion

The responses pertaining to change in the expectations of managers from ERP in the last five years (1994 and 1999) is shown in Table 1. It is evident that there is a change in the expectations if we compare the percentage of respondents saying yes on different features pertaining to the need of ERP and organizational change. Hence hypothesis number one is rejected and it can be said that there is a need to transform the organizations to meet the changing demands and perceptions of the respondents.

**Table 1 : Rationale of ERP**

Feature	1994 (yes %)	1999 (yes %)
Rule to free up time	43.8	64
Focus on business rather development and maintenance of software	37.5	42.5
Standard business process	31.3	38
Bring people to shared tasks	18.8	22.8
Cycle time reduction	18.8	41
Reduced repetitive information input	18.8	10
Proactive to potential problems	15.6	19
Reduced inventories	15.6	60
Ad-hoc querying and reporting	12.5	14
Catalyst of Cross functional organization	12.5	12
Position of strength and consistency	9.4	11.5
Reduced cost of business information	9.4	11
Solution to Y2K and Euro	9.4	36

The critical success factors for successful implementation of ERP have also changed during the last five years (1994 and 1999) as is evident from Table 2. Hence hypothesis number two is also rejected. It can be said that the critical success factors must be taken into consideration while deciding to transform an organization.

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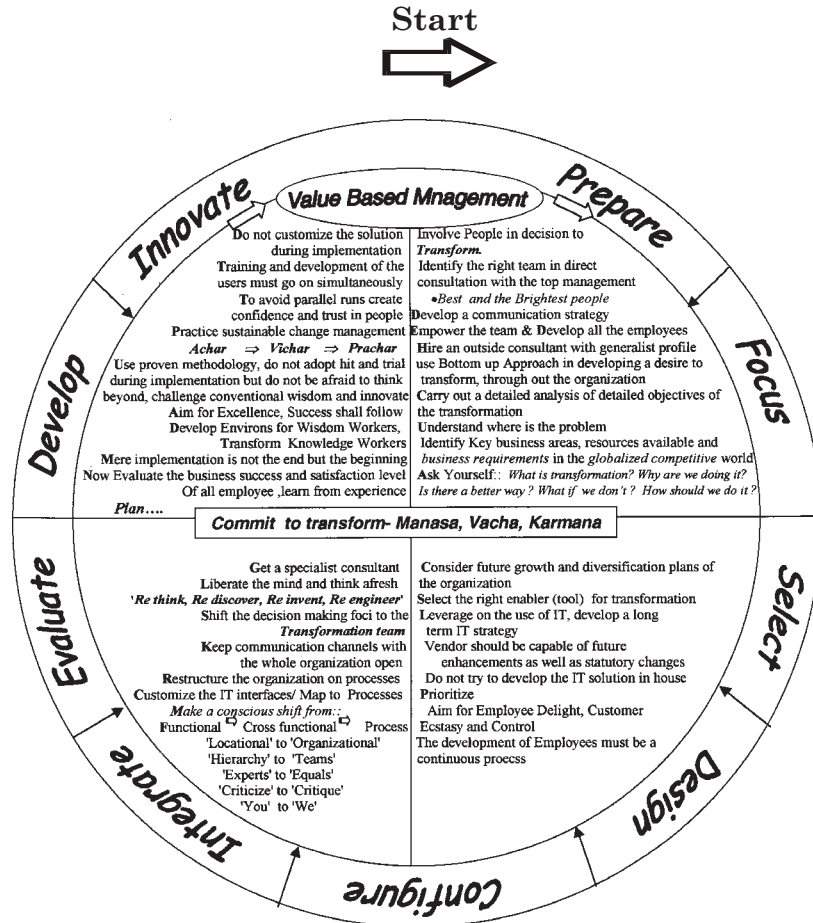
**Table 2: Critical Success Factors for ERP Implementation**

<i>Feature</i>	<b>1994 (yes %)</b>	<b>1999 (yes %)</b>
Visible Top management Commitment	87.5	80
Balanced Team Constitution	25.8	20
Gaining a big picture before going in for the technicalities of the implementation .	23.3	7.5
Keeping Customization to a minimum	18.8	26.2
Training and education through out an organization	18.8	13
Effective testing	18.8	19.5
Getting every one on the same team	16.1	12.5
Accurate data conversion	15.6	9.3
User interaction and involvement in all phases of implementation	15.6	33.4
Functional Managers buy in to the potential of new systems	12.5	16.2
Removing Pockets of Distrust with in the company	12.5	15.8
Well oiled two way communication channel	12.5	22.6
Rapid decision making	12.5	44
Continuity of the team through out the implementation cycle	12.5	10.5
Expect problems to arise: commit to change	9.4	3.5
Effective risk management	6.5	4.8
Creating a sense of pride	6.3	2.5
Reward systems to motivate end users to adopt	6.2	7

ERP implementation is one tool to achieve the goal of making an organization world class. It is clear from the above that critical success factors for making an organization world class are not constant. Hence we felt the need to develop a new model which can help the organizations of the new millennium in making them world class.

The new model (The Wheel of Transformation) proposed in the paper is a generic model that has been developed taking into account the shift in the perceptions of managers and the changing critical success factors.

Figure 1 : The Wheel of Transformation



## The Model

### Phase 1: Pre-Transformation Realization

All organizations, in principle, would like to transform, however, very few make a planned attempt to do so, even fewer succeed. Much before an organization plunges headlong into radical redesign of their processes or any other seemingly kick off stage what it must understand is that transformation is essentially a rediscovery of an entire business philosophy, *the atman (soul)* of the organization. What is important is to make the managers see the business as a whole and understand what it requires of them (Drucker 1983). Several other studies also needs to be understood and due note must be taken to have a complete picture. Scholars claim that the knowledge workers can not be managed like the blue collared workers Dertouzos (1989) warned that compulsion will not effectively generate commitment, responsibility and knowledge necessary to be effective in highly cerebral organizations. Lawler (1986) and Watson (1985) have advocated a new high involvement management which gives knowledge workers broader responsibilities , encourages them to contribute, and helps them to derive satisfaction from their work. Drucker (1989) suggested that these workers be treated as specialists who direct and discipline themselves. Handy (1989) encouraged mangers to reinforce, motivate, teach, and counsel knowledge workers while giving them room to make mistakes. Savage (1990) holds managers responsible to for creating an environment of openness and trust. Current workplace structures, practices and expectations surrounding knowledge workers are based on the notion that employees are willing

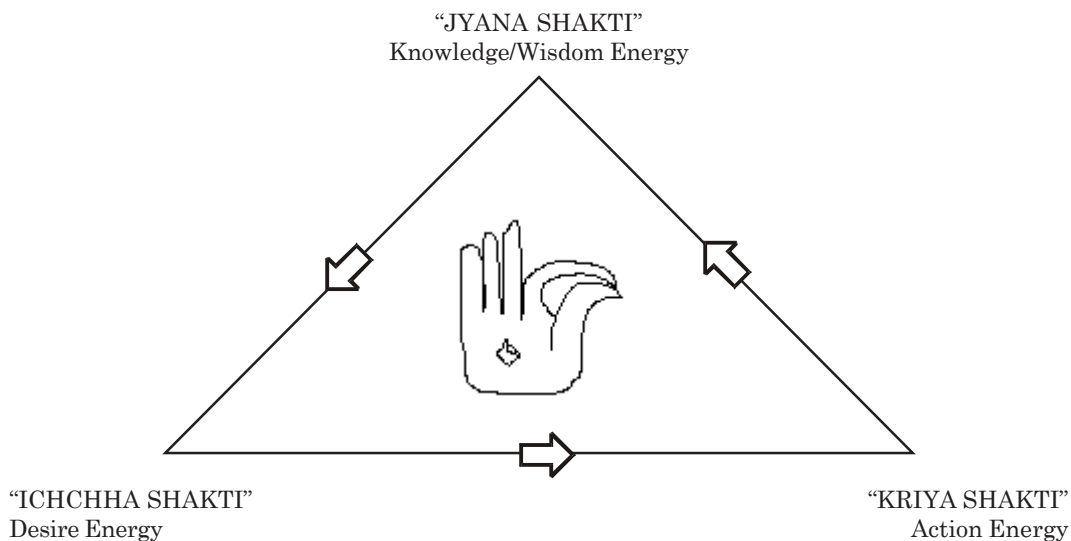
and able to make work their priority over and above their family, community or other concerns in their private lives (Christopherson 1991; Bailyn, 1993) People are consumed by what Coser (1974) referred to as greedy institution. Employers can not and do not assume that the employees can be 'trusted' to identify with the goals of the management as if they owned or co-managed the enterprise (Salaman 1981).

The realization is required at all levels including the top level management that transformation is no longer a luxury (they can ill afford to avoid) but must appear high on their survival checklist. This can be attributed to the fact that managing transformation dynamics is as difficult and critical to success if not more, than rest of the parameters put together. Singh (1998) has explained the dynamics of managing transformation which is very much relevant to create a conducive environment.

### Dynamics of Managing Transformation

Whenever a transformation has taken place, one can discern a pattern which indicates that there are three basic forms of energy (SHAKTI) which together overcome the inertia. Figure 2 explains this concept more clearly.

Figure 2 : Dynamics of Transformation



#### Knowledge/Wisdom Energy (JYANA SHAKTI)

The virtuous triangle of 'SHAKTI' has knowledge/wisdom energy at its apex. Often, the knowledge of a better new world energizes a desire to reach for it. Such a vision of a superior alternative leads to a feeling of dissatisfaction with the existing state of affairs. The greater this dissatisfaction, the stronger becomes this push force favoring a change.

**This is the first identifiable force - knowledge of a better new world or wisdom to think beyond the present and consequent dissatisfaction with the present or need for transformation for the future.**

#### Desire Energy (ICHCHHA SHAKTI)

The desire of a single individual to bring about a change/transformation may not be adequate to push the organization ahead. There is a need for this desire to be planted in a larger number of individuals in the enterprise. This needs a sharing of the vision amongst all the key players.

**Such a shared vision which gains critical mass through replication is the second force.**

### **Action Energy (KRIYA SHAKTI)**

Once this happens, everyone in the organization becomes restless and wants to know 'What Next'. That is where action energy comes in.

**To spell out an action plan - at least the first few steps required to bring about the transformation - is the third force.**

Hence it is very important to make transformation a shared vision of the entire organization. The implementation of the shared vision is also critical for which the right team involving the best and the brightest people needs to be identified in direct consultation with the top management.

### **Build the right team**

The team should ideally comprise of the *best and the brightest people with* representation of all functions and locations of the organization - 'People with long innings and freshers'; 'Corporate whizkids and blue collar workers'; 'Thinkers and doers'; 'people with functional experience as well as with a consulting profile; each member of the team must not only have vision and enthusiasm but also the sheer staying power to last the complete exercise. No vision no strategy can be achieved without able and empowered employees. (Argyris 1998) It is supremely important that the empowerment of the people takes place as a foundation stone to the frame work of transformation. One may admit that the need to speedily respond to emergencies (contingencies) may not be quite as acute in a business setting as in a military operation but shall certainly go a long way in ensuring success, therefore, from day one- that the formation of the team takes place, there must be complete empowerment of the team in terms of planning and decision making for the transformation.

The team must then sit down for **brain stalling (meditation) and brain storming** exercises to develop an effective two way communication strategy. The team should keep all communication channels whether a formal suggestions box or the grapevine open at all times, for they are going to bring to the team very valuable inputs ranging from 'How do the employees at large perceive the exercise?' to 'What hasn't gone down too well with them and why?'. The aim of the communications strategy should be to spread awareness of the exercise throughout the organization and build a general will in favor of the same. It must also at later stages in the process, be used to keep everyone informed of the progress as Mckean (1993) states that 'when person develops the expectation that many events are uncontrollable he or she will be at a risk of developing helplessness. Seligman (1975) coined the term helplessness as a response of an individual to uncontrollable conditions.. The resulting transparency of the process shall be a great boon at the time of restructuring and redesign of the organization.

The team should work at producing performers. It would in turn not be possible to conjecture them out of thin air, so a long-term strategy for the development of the employees should be put in place. Every one in the top management must understand the magic mantra :

#### **'When the people grow the organization grows automatically.'**

The organization can organize in house seminars and orientation programs to bring the employees up to date with the latest in the areas of business and information technology, etc., or even bring out a company newsletter and encourage the employees to contribute to it. This must be a continuous process and be made a part of overall company policy as if the organization invests in sowing performers it shall definitely reap success.

Once the cart has been set rolling and an overall atmosphere of enthusiasm has been created within in the organization it shall be safe to say that the organization is half-ready to embark on the journey to excellence.

Now is the time to hire an outside consultant with a generalist profile to get an outsider's view of the intra-organizational dynamics. The consultant should go to work with the team studying processes and policies of the organization. Simultaneously the team with the help of the

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consultant should work at creating a desire to transform through out the organization, because for any change to be really effective it must not be forced on to the people but the will for it must come from within. The people at all levels must have intrinsic motivation to transform and it should flow from bottom to top. The success lies in ensuring that no one in the organization perceives transformation as a threat but view this as an opportunity to grow, working towards the shared vision of making the organization truly world class. A detailed analysis of the objectives of the organization to transform must be made. Any such analysis would be grossly inadequate and largely off mark unless it understands the *present problem and is able to foresee the future problem areas*.

The team should identify key business areas, their requirements in the globalized competitive setting and the resources available to meet the same.

The team should now bring the focus to answer the key questions of

What is transformation?

Does the organization understand what it is undertaking?

Why are we doing it?

Does every body have a shared vision and enthusiasm for transformation?

Is there a better way?

Is every body convinced about the merit of the plan?

What if we don't implement it?

Does every one in the organization understand the requirements of the global businesses?

How we should do it?

Is communication strategy effective and does every one know the blue print of transformation?

Great now the team has found answers to these questions we could say that the organization is on the runway of transformation what it needs to do now is to design the flight plans for the journey selecting the right route and refueling stops!

The next milestone can be defined as the selection of the enabler followed by design and configuration of the solution. Whatever the solution it must aim at Employee Delight i.e., they must feel that the new system is being introduced to increase their effectiveness and not to try and replace them. The mantra for competing in the market should be that of ensuring Customer Ecstasy with value added services. Post-transformation business model must be so designed by the Team that it ensures that the business is able to respond to whatever the customer demands.

### **Phase2 : Laying the foundation for the global organization now on the horizon**

It is a widely accepted and professed fact that *'to survive the businesses must grow'*. In this era of customer control the businesses have found it very appealing to diversify with growth. At times it has even been felt that the organizations are taking one to imply the other. However to retain core competencies for competitiveness many have also chosen to spin off wholly or jointly owned subsidiaries, dive in with joint ventures, etc., though over the last few years the volumes of mergers and acquisitions have also become huge. The success or merit of both approaches is a highly debatable issue. The software industry is arguably the best arena to watch both approaches slug it out. On the one hand largest software company Microsoft owes it volumes and dominance to having a competing application in all areas ranging from operating systems to gaming hardware creating the win-win situation of Microsoft Vs Microsoft, however the greatest competition to Microsoft has come from companies like Oracle, Netscape, etc., who have developed core competencies in their respective areas and are giving the products from Microsoft a run for their money. The moral of the story is that if the organization is going to brave the changing times the future growth and diversification plans must define the foundation on which the very structure of the organization stands tall. So the transformation team must chart and define the path in light of the future of the organizations as the single most important factor in consideration. It has been aptly said that *'invest in your future because you are going to spend a lot of time there'*.

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Once the objectives and milestones have been formulated the team must now work on selecting an enabler of transformation. The tool to gear up the organization to meet the challenge. The team could consider legacy approaches like TQM etc. or the IT savvy solutions like ERP, etc.

No matter what area of the business the organization operates in, the next millennium shall see information emerging as one of the most important resources of the organization. Therefore, there is a need for the team to get in place immediately to formulate a long term Information Technology strategy. The team must see that whatever vendor the organization chooses to develop or deliver, the solution must be capable of future enhancement to meet the increasing and ever changing needs of the organization. Cost benefit analysis is a must before deciding to outsource it or develop the same in house. It is very important to note that even Microsoft chose to implement SAP R/3 rather than develop the solution on their own. The team should also ensure that the organization do not attempt to do too much too fast; Prioritize to succeed. With the rapidly changing technologies the development of the solution should be best left to the people with core competency in the area.

The information age has seen predictions (more farfetched than ever before) being made, at times promising the moon, of course not all have come true, however some seemingly impossible ones have found their way into our daily lives and others that seemed like the logical extension to the present are no closer to reality today than they were then. One common feature of all revolutionary developments be it the discovery of wheel in the stone age to the internet in the information age is that the efforts have been directing at making the life better for the most intelligent creature on Earth the *Homo sapiens*. This has effected the way organizations do businesses in a greater measure than any other single factor. The paradigms of success shifting from customer satisfaction which went out with buckled shoes to customer delight which has now been replaced by customer ecstasy with value added services becoming the buzz word. With E-business coming in a big way following the Internet revolution the paradigm is all set to shift to Customer Control with the entity of the customer changing from largely local in nature to global.

This makes it imperative for the organization to anticipate the ushering in of *the human age*. Therefore, when the organization rediscovers its business philosophy, its atman (soul), the human perspective must be at the center of all concerns. The transformation team should ask itself how is this decision going to affect the people (the most important asset) working in the organization - the human asset and the customer - the business driving entity in that order.

Further it must also be kept in mind by the transformation team at all times that logical extrapolation must be tested in real life scenario before imbibing it as a business philosophy. Therefore, the transformation team should continuously take the feedback of the employees regarding the relevance, effect, progress, perceived success and enthusiasm regarding the transformation.

### **Phase 3: Integration and Evaluation**

The organizations most often tend to believe that they know best how to run their business which may be usually true but not necessary so in the globalized setting. It may be said without putting any question mark against the value of experience gained by the organization over the years and of the competency of the best and the brightest people in the transformation team; that to get professional advice from an individual with an unbiased attitude almost never fails to provide new insights into the fallacies of the approach that the thinkers in-house are usually not able to notice. In other cases it may help pin point the causes when the in-house experts are hesitantly vague about it. As William Blake an English poet and artist remarked in his work *The Marriage of Heaven and Hell* (1791) *No bird soars very high if he soars with his own wings* the time for the organization at the outset of the third stage is ripe to hire an out side specialist consultant to get a third party opinion of the organizational policies, practices and processes.

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### **Liberate the Mind and Think Afresh**

Managerial creativity can be nurtured only in an open and independent atmosphere (Pethe and Gupta 1997) so starting afresh is especially a good idea for a radical transformation. No vision no strategy can be achieved without able and empowered employees, therefore, it is supremely important that the empowerment of the people takes place as a foundation stone to the framework of transformation (Argyris 1998). Seligman (1975) coined the term helplessness as a response of an individual to uncontrollable conditions. Mckean (1993) states that 'when person develops the expectation that many events are uncontrollable he or she will be at a risk of developing helplessness. Hussain (1996) has suggested that if the organizations decide to improve upon the existing organizational culture, deepening of biophilia, freedom and liberation of the human resource must be the main thrust of their policies. The study has shown that managers have transcendental experience, the organizations would do well to adopt the yoga system of Patanjali for improving their transcendental experience. However, the self actualization needs of the of the executives should not be ignored and therefore all the existing practices for providing self-actualization need should be continued till self-transcendence becomes the vibrating culture of the organizations. Garg (1998) opines that in the process of transition, if proper care is not taken, enormous amounts of values are destroyed.

#### **Box 1 : Ford-Mazda Story**

The genesis of BPR can be traced back to Ford Motors. In the mid-eighties management of cash flow became a major problem for vendors supplying components to Ford. The Suppliers approached Ford and requested the company to settle their invoices expeditiously.

When Ford looked at why it took several weeks to send the payment, they discovered that some 500 people were employed in functions relating to accounts payable and a major portion of their time was being spent in reconciling various documents like purchase order, goods received note, vendor bill, etc.

By streamlining the process and reducing the work involved in such reconciliation, Ford was able to halve the process time. They also achieved a 25% reduction in manpower. Ford felt happy over the performance improvement until they discovered that Mazda of Japan employed just five people to manage the same activity.

In the case of Mazda there were no purchase orders or bills. Vendors had a direct telelink to Mazda's computer. They picked up their delivery schedule directly from Mazda's system and supplied strictly in conformity with that. At the end of the day, the vendors' accounts were credited through Electronic Funds Transfer based on the total production in the Just in Time (JIT) line at Mazda. The system was elegantly simple.

This gave Ford the idea to dispense with the need for a bill from the vendor to make the payment. The process was changed from "We pay on receipt of vendor invoice" to "We pay on receipt of goods". Dispensing with the bills was a major breakthrough, which led to the process time being dramatically reduced by a factor of four and a simultaneous (near 50%) reduction in staff strength.

What Ford achieved was not mere automation. They had obliterated the unnecessary processes involving the vendor bills. Subsequently, Ford obliterated a lot of other redundant processes.

The quintessence of business process reengineering lies in Mike Hammer's message - "Do not merely Automate, Obliterate" (Hammer 1993).

**Source:** M. S. Jayaraman et.al.(1996) "Business Process Reengineering", Tata McGraw-Hill Publishing Co. Ltd., New Delhi.

Now that the planning in principle is over and every body understands what exactly needs to be done, the ***doing should begin now*** in a big way.

The transformation team while embarking on the journey of the rediscovery of the business philosophy must not carry any excess baggage with it from the legacy system, biased opinions, limiting protocols, etc. The team must sit down for brain stilling (meditation) and brain storming exercises for developing new ideas but not be taken over by them but think in terms of feasibility and implementation, resources and time. The logical extension to this stage is the Re-invention of the business processes and Re-engineering them to maximize efficiency.

At this stage it is critical that what the team decides is implemented speedily without bureaucratic delays. The team must be empowered to take decisions. Bennis (1985) wrote that the old GM philosophy of management could be summed up in the phrase 'DON'T THINK DUMMY \_ DO WHAT YOU ARE TOLD'. Now there is a new credo that goes 'I THINK I AM NOT GOING TO TELL YOU WHAT TO DO'. The top-level management should play the role of a facilitator. Continuous feedback must be gathered from throughout the organization. Extensive use of IT must be done at this stage. The approach should be to customize IT to the user requirements and the process requirements and not vice versa.

#### **Phase 4: Implementation, Feedback and Starting afresh on the Wheel of Transformation**

Well now is the time when any team would start feeling the inertia of waning interests and enthusiasm so it must make conscious efforts to avoid the same. The stage is now set to reap the fruits of earlier stages and once again go to work making a pudding from them by developing and innovating in the recipe.

Great things are done when men and mountains meet, not by jostling in the street. Every resistance to change must be viewed by the team as a challenge to be met and not an adversity. The feedback from earlier stages should be used to develop a master go live plan in close coordination with the top management. Other than in exceptional cases the team must not modify the plan at this stage simply because they are being met by resistance from certain quarters. This problem would be automatically taken care of if the training and development of the employees takes place simultaneously. If the will for change comes from within then the transformation takes place in the most desirable form. To ensure that the employees are not intimidated by the transformation that is setting in or shocked by its sheer magnitude they must be made a part of the transformation juggernaut that should envelop one and all in the organization.

The team must also not succumb to pressure of skepticism from the management and go for any form of a parallel run. The aims and objectives of the whole exercise is to develop a new business philosophy and make every one in the organization family believe in it so that the very thinking, premises and approach towards all issues is transformed. A sure recipe for failure is a parallel run, it must be avoided at all cost and a request for the same should be dealt by more confidence building measures like an intra-company white paper and not merely a flat denial.

At this stage any seemingly unimportant oversight could snowball into an organizational disaster so don't be afraid to think beyond and challenge conventional wisdom. The spirit of innovation must guide the team in this stage but not hit and trial. Earlier studies by various authors reveal that the knowledge workers report higher stress levels. The organization should, therefore, develop the wisdom workers. The carrot must be excellence and not success. Mere implementation of the plan is not the end but the beginning as all it does is to create a sound environment and firm base for growth and development. The organization must develop by learning from its own experiences also and once again start from stage one that is to innovate. Any transformation cannot meet the desired objectives if the spirits of innovation are not

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imbibed in change management. Michael Tushman and David Nadler (1986) stated “In today’s business environment, there is no executive task more vital than the sustained management of innovation and change.

## Conclusion

Results of the survey indicate that there is a need for a shift in the focus from concentrating purely on the technological and business issues to human oriented approach for transforming organizations. The Wheel of Transformation, a new model, has been developed using IT only as a tool and human development as the ultimate end to ensure the successful implementation of the transformation process in the organizations, after detailed empirical analysis. It can be concluded that human beings must be brought at the center stage for all the decision problems to make them internally committed towards the shared vision to transform the organization for local to global.

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