QUALITY OF WORKING LIFE: AN ANALYTICAL MODEL*
(With special reference to Information technology)

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Abstract

With the advent of information technology, the life space is fast undergoing radical changes. Distinguished self-identity in working life, which was a far-fetched dream few years ago is becoming a reality. Companies are adopting innovative and highly personalized approaches in inducting middle and top-level executives into the company's mainstream.

The article identifies 16 variables of Quality of working life, which are subjective, objective, related to profession and family.

These variables are pay, incentives, career growth, personal growth, security, job design, participative environment, physical standards, loyalty, organizational management, job market, professional objectives, social values, professional pride, leisure and family aspirations

The variables in the grid are so arranged that the upper two rows are objective variables and the lower two rows are subjective variables. The horizon divides the objective and subjective perceptions. The horizon is the buoyancy on the subjective and objective perceptional divide.

The buoyancy of the horizon need not be a thin line. It can be a band encompassing the subjective and objective zones. This area is called the transitional perception zone.

The QWL grid is made up of four operational grids, each describing a stage in career and change in aspirations.

Considering the nature of IT sector and dynamics of HR, the policy needs to center around acquiring, utilization and retaining manpower.

It is the appropriate time to adapt 401k status plan, flexi time, decentralized work place, appointing peers, family and close associates to induct spontaneous team spirit. Entrepreneurial executives and family interaction and open house debate on HR issues will make IT replete with innovations, which is already undergoing management revolution.

Full paper

With the advent of information technology, the life space is fast under-going radical changes. Distinguished self-identity in working life, which was a far-fetched dream, few years ago is becoming a reality. Companies are adopting innovative and highly personalized approaches in inducting middle and top-level executives into the company's main-stream. New paradigms are fast emerging in human resource management. Behavioral sciences are making inlays into management, more liberally than ever. Serious attempts are being made to develop such technologies, which make manpower more productive as well as consistent, cooperative, objective, loyal and missionary. Harmonious interpersonal relations and excellent working ambiance continue to be on the top of any corporate agenda.

Industrial democracy is integrating man, organization, society, job design, human needs, values and societal concepts. The result is a highly evolved relation between man and task. The role of work in personal life is occupying more significance than ever before.

Establishing a link between a company's mission and HR program is the prime objective of the Quality of Working Life endeavor. Productivity, sustenance, flexibility, low HR turn over and growth are watch words. Specially in IT industry, the corporate environment is fast changing. Flexible timings, freedom of place of work, multi-utility office space, stock options, projects abroad, and other perks are continuously updated in a competitive level. The sole objective is to make work more acceptable to executives, in their total life space.

R.E. Walton [16] identifies eight criteria for describing the quality of working life. He lays emphasis on factors like adequate and fair compensation, safe and healthy environment together with development of human capacities. Other factors are growth and security, social integration, constitutionalism, total life space and social relevance. Since it lays uniform emphasis on all the above factors, they are not classified any further.

The study conducted by Sangeeta Jain [13] on the quality of working life in Indian industrial workers, considered these eight parameters. These parameters were further sub classified. The study covered three categories of workers, i.e., unskilled, semi-skilled and skilled. The study brought out the difference in perception among different category of workers.

Primarily, the pay satisfaction would arise out of adequate compensation. Further, reasonable hours of work, physical conditions and age limit for a job lead to safe and healthy conditions.

In the design of a job, autonomy, multiple skills, information and process of planning are important. These factors provide immediate opportunity to develop human capacities. Added to this, opportunity for continued growth and security develop sustenance of person in employment.

Freedom from prejudices, egalitarianism and community feeling are factors of social integration. Interpersonal openness in communication helps in creating kinship in work.

How a person is treated in his work environment is a matter of constitutionalism in the work organization. Equity, freedom of speech and privacy can be identified as the key features in constitutionalism.

The role and significance of work in total life space moulds the individual into a productive worker and a holistic person. Social responsibilities develop an ethical self and the individual becomes a rounded personality.

Quality Of Working Life (QWL) - An Analytical Model

The QWL analytical model identifies 16 variables to form a 4x4 interactive grid. The variables in the grid are so arranged that the upper two rows are objective variables and the lower two rows are subjective variables. The horizon divides the objective and subjective perceptions. The horizon is the buoyancy on the subjective and objective perceptional divide.
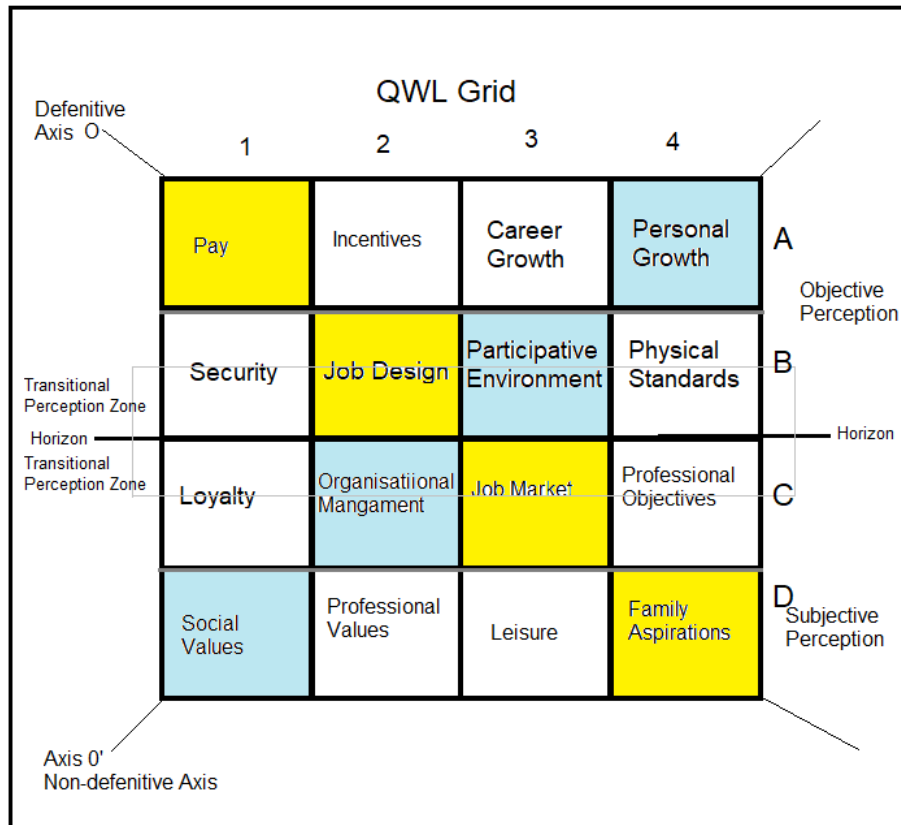
The buoyancy of the horizon need not be a thin line. It can be a band encompassing the subjective and objective zones. This area is called the transitional perception zone.

In HR management, it is essential that the buoyancy of horizon has as many variables as possible on the objective field. It makes HR productive, stable and satisfied. In the same way, the variables in the subjective zone provide durable and mystic factors to retain HR in good productive conditions.

There are two axes running diagonally in the grid. Axis O is the definitive axis and Axis O' is non-definitive. Axis O has definitive variables where the results are tangible. The O axis is arranged in the increasing order of tangible definitiveness. Similarly, Axis O' has non-definitive variables arranged in the diagonal. Axis O' has non-definitiveness variables arranged in increasing order of tangible definitiveness.

The following variables are arranged in an interactive grid where perceptions and interdependence of factors is brought out in main grid and derivatives.

1. Pay A_1
2. Incentives A_2
3. Career growth A_3
4. Personal growth A_4
5. Security B_1
6. Job design B_2
7. Participative environment B_3
8. Physical standards B_4
9. Loyalty C_1
10. Organizational management C_2
11. Job market C_3
12. Professional objectives C_4
13. Social values D_1
14. Professional pride D_2
15. Leisure D_3
16. Family aspirations D_4

QWL Grid

	1	2	3	4
A	Pay	Incentives	Career Growth	Personal Growth
B	Security	Job Design	Participative Environment	Physical Standards
C	Loyalty	Organisatiional Mangament	Job Market	Professional Objectives
D	Social Values	Professional Values	Leisure	Family Aspirations

Defenitive Axis O

Objective Perception

Transitional Perception Zone

Horizon — Horizon

Transitional Perception Zone

Subjective Perception

Axis 0'
Non-defenitive Axis

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The grid is numbered as 1,2,3,and 4 in columns A,B,C and D in rows, each cell will have a unique identity.

Example A_1 is Pay and A_4 is personal growth, similarly D_1 is social values and D_4 is family aspirations.

Cells defined by A_1 to A_4 and B_1 to B_4 are *prima facie* objective and those belonging to C_1 to C_4 and D_1 to D_4 are subjective perceptions.

However, if the transitional perceptive zone expands, it may cover parts of B_1 to B_4 and C_1 to C_4. Hence it is desirable to expand the transitional perceptive zone downwards in the direction of C and D.

Similarly, Axis O is a definitive axis covering A_1, B_2, C_3 and D_4. On this definitive axis the tangibility decreases from A_1 to D_4. Axis O' is non-definitive axis covering A_4, B_3, C_2 and D_1. On this axis tangibility decreases from A_4 to D_1.

Each cell has an identified QWL variable. The proximity cells influence or are influenced by the neighborhood.

Work design, for instance, if considered as an independent variable, is influenced by the proximity cells. Job design depends on the job market with competitive inputs, incentives and pay, which are together referred to as remuneration package and professional security. On the other hand work design is influenced by organizational management and loyalty factors.

As the main characteristics of the grid goes, the independent variable work design is influenced, tangentially, with lesser intensity, by pay, loyalty, participative environment and career growth. These are definitive and non-definitive parameters as in the main grid**.**

Life space and Work space :

The QWL grid is encompassed by the personal life space. The complete arena is the total life space. Graphically, larger the peripheral cells, there will be wider degree of freedom to manage the transitional perception zone. Larger personal life space provides the leverage to consolidate the transitional perception towards objectivity.

Further, D row made up of social aspirations, professional pride, leisure / entertainment and family aspirations which are cohesive from within. D row provides the emotional base. It is the fundamental base for the objective and definitive expectations of the employee.

IT companies in India have such social interactive functions where the employees with their families participate [14]. Families are invited to work place, where they can see and feel the working environment, interact with colleagues and experience the common environment.

Mastek in Hyderabad organizes four-day function called Runtime for the employees and their families. Relationships in every organization go through high and low and such events provide chance for the management and employees to sit together and deal with issues on one-to-one basis. The objective is to provide an environment where honesty and transparency is promoted.
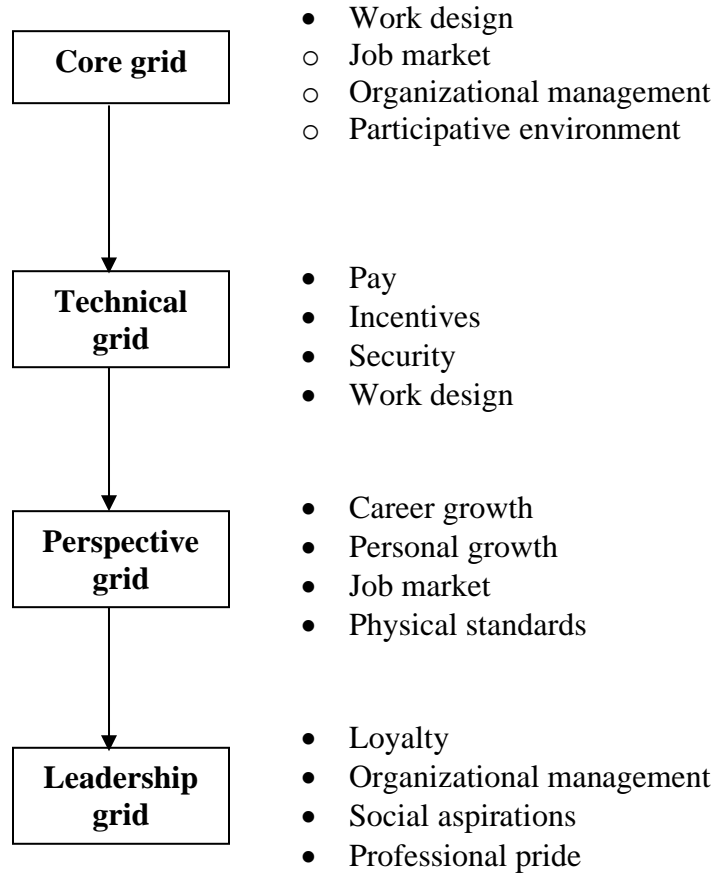
Perry Christensen [4], Former Director, HR Strategies at More & Co, Boston, feels that the work and personal life are not competing priorities but complementary. In the total life space, work occupies a major share. Accordingly, there is a proximity influence on one another.

From the management point of view there are certain guiding principles. A company must enhance organizational performance, yet creating time for employee's personal pursuits. This is possible only where employees are considered as 'whole people'. In a specially designated forum, there should be a continuous dialogue on *business to individual goals*. Such attempts will go a long way in establishing good Human relations and maintaining sustained higher levels of productivity.

Hierarchy in QWL expectations :

When these sixteen parameters interact in the Working space there is clustering of variables in the proximity. The cohesion is greater among certain cells than other. These cohesive factors change with changing perceptions, experience and expectations.

This gives raise to hierarchy in QWL expectations of a person.

| Core grid | • Work design
o Job market
o Organizational management
o Participative environment |

↓

| Technical grid | • Pay
• Incentives
• Security
• Work design |

↓

| Perspective grid | • Career growth
• Personal growth
• Job market
• Physical standards |

↓

| Leadership grid | • Loyalty
• Organizational management
• Social aspirations
• Professional pride |

Core grid :

Work design	Job market
Organizational management	Participative environment

	B_2	B_3	
	C_2	C_3	

The core grid is made up of job design, job market, organizational management and participative environment.

This grid is comprised of definitive and non-definitive factors, tangentially. Direct proximity cells have greater influence and cohesiveness. Job market provides the competitive inputs for work design; participative environment and organizational management are endogenous factors.

These core variables expand into QWL diagonally, horizontally and vertically to construct the working life. An aspirant into the profession will build up the working space of life, starting with these cohesive parameters.

In the formative years of career the employee is guided by less tangible, non-definitive variables. As the employee builds up experience and develops industry specific skills, the core grid will expand thus creating highly personalized working life space. The quality aspirations are defined and is guided towards more definitive and objective variables.

At this stage, the competitive job market provides more opportunities and the employee becomes more sought after in the industry.

As the core grid expands, the company will have greater responsibility to grow into the quality expectations of the employee so that the increasing level of productivity is retained by managing the proximity variables of the core grid.

Technical grid :

Pay	**Incentives**
Security	**Work design**

A_1	A_2		
B_1	B_2		

This is a technical grid made up of highly objective and definitive variables. Junior executives and middle level executives are totally governed by these variables.

Pay and incentives constitute the remuneration package. This is the pecuniary reward in the profession.   The combination will have great appeal in improving productivity.

With in the cohesive band made up of security and work design a person will display higher levels of productivity to influence peers.

The technical grid helps in grooming the skills of the person. It may also bring out the leadership and managerial traits of a person. The convergence of human efforts take place with the technical grid. Personal attributes and job skills start matching. If the job profile involves client interaction, travel, or projects abroad, the person develops individuality, identifying with the company. The person displays the corporate image and policy with self identifying motives.

During this phase, the proximity, job market and like companies may lure people for horizontal mobility. The person will by and large is governed by the intensity of these cells being offered by the new employer.

Perspective grid :

Career growth	**Personal growth**
Job market	**Physical standards**

		A_3	A_4
		B_3	B_4

Persons visualize career and growth after the profession offers adequate security, attractive remuneration package and the corporate ambiance providing reasonable job satisfaction.

At this stage there is a risk of large human resource turnover. The influence of job market, domestic and abroad become more and more prolific. The individual starts differentiating career growth and personal growth.

Amidst the growth of dot com companies, dearth of innovative ideas, revenue models of net enterprises, career ambitions soar high. Venture capitalists and success stories of technocrats making big in IT industry will induce great ambitions in individuals.

Around the same time, the executives start identifying their contribution to the growth of the company. The strategy of HR management has to focus on retention of middle level management executives. This is done by giving individuals charge of projects, clients, regions etc. Together, stock options, larger involvement in corporate planning and policies, non- material rewards play a decisive role.

Leadership grid :

Loyalty	Organizational management
Social aspirations	Professional pride

C1	C2		
D1	D2		

This is a senior managerial grid. Larger inertia is found here with respect to Human resource turnover. As a matter of fact, HR turnover is not desirable at this level. Being a senior management level, people are associated with certain developments in the company or even considered responsible for the development of a particular product, service, market or sales turn over.

This is a precious resource the company can posses. The person here is guided by several non-definitive and subjective factors.

Being a part of corporate growth, the person develops loyalty and professional pride. In corporate circles the person will be quoted frequently thus making him most sought after. Head hunting through non formal job market begins.

At this stage the company has to retain by strengthening the organizational management, social aspirations and pride, thus commanding greater loyalty. Here the HR management strategy is towards lesser pecuniary gain and more towards structural transformation of management to match emotional expectations of the senior executive.

Organizational Management ;

Organizational management has been undergoing fast change since 1990 all over the world. In the context of knowledge workers in the IT industry the human relations are moving on to new paradigms of management.

According to John Seely Brown [s,] the Chief Scientist at Xerox Research Center, there has been a shift from reengineering process to practices. From the traditional management process of linearity depending on predictable environment, the change is

towards spontaneous practices. Given the characteristics of IT, the environment becomes less predictable. To retain high levels of productivity and retention of work force, the management practices become non-linear and flexible.

This change can be found in job hierarchy, training, Research and Development and remuneration package. Under the influence of changing job market scenario, the practices within become more spontaneous. This emerges as the need of the day with tacit knowledge. Such an increase in the knowledge base, the management function becomes more challenging.

As a matter of flexibility, the IT companies keep changing their management strategies. According to Jacqueline Visscher [7], knowledge workers need working space but also prefer walls, doors and their privacy. Spells of productive working hours expand in the given choice of environment.

At Microsoft Research and Development Head Quarters in Redmond, people work in private offices. With respect to the IT industry all norms are changed to accommodate knowledge workers in their natural and choice environment. The Microsoft experience reveals that 'people work best in private'.

With decreasing capital cost per employee in the IT sector, the work spreads to non-centralized avenues. Professionals in IT as well work from the comforts of their homes, commuting becomes less, thus reducing the frictional wastages of travel time. Reducing computer hardware prices, internet revolution and developing technologies in communication, work becomes decentralized. IT executives working away from offices on their laptops is a common sight.

HR turn over and US factor

According to NASSCOM, India will require 22 lakh IT professionals. It will enable India secure US$ 100 mil. business by 2008. India produces only 70,000 IT professionals per year. Even when the contributions of non-formal education sector is considered the supply may not increase more than 1.5 lakhs per year. This difference in the demand supply is going to create several new practices in acquiring and maintaining professionals in IT companies in India. The international demand for Indian IT professionals is fast increasing. US alone needs 1 million professionals by 2004.

US Immigration and Naturalization Services [11] reports that, workers approved for H-1B non-immigrant status during a 15-month period from May 11, 1998 through July 31, 1999 is approximately 134,400; all were for new employment.

The potential of Indian software professionals being employed is high. Almost 48% people getting H-1B visa are from India. Further 53.3 % of Indians entering through H-1B visa join the US IT industry.

It is an indication of growing US opportunities for the Indian software professionals. Such tendency increases the turnover of professionals in the domestic IT sector. Simultaneously, the task of retaining senior professionals and increasing corporate loyalty levels become critical.

The per capita salary amounts to an average of $ 50,000 per anum. Together with a growth of 20 to 45% annual increase in the remuneration, the lure of US employment is irresistible.

However there is a reverse trend reported by the media in October 2000. High salaries and perks comparable with US pay packages are being offered in India. Yet, in the near future the flow will continue to be toward US.

The loyalty factor remains to be critical for the HR departments of IT companies. Though software education has been growing rapidly, to get persons of a particular skill set and instantly productive, is very difficult. The placement agencies and in-house personnel department fail to provide manpower economically.

It can be estimated that for an average 3-year durable employment the cost of employing a professional will be 14 % of total pay bill, considering placement cost and 3 months training.

Stock options are used for retaining middle level and top-level executives. The fiscal laws that consider the difference between the issue price and market price as the taxable income of the person during the given financial year lessen the charm of these stock options in India.

Policy implications :

In the soft ware industry, scope for innovation is aplenty. Unexpected changes in market effect the software technologies, process needs and similar congruities. The need of the industry is to accept these changes and challenges. In 1930, IBM designed accounting machines for large banking houses [9]. In those days of Depression and New Deal Policy such a development was considered totally useless. The then CEO of IBM Thomas Watson could sell more than 100 machines to the banks. This is an example of adaptive perception to the market.

In the software sector, innovation is the key word for growth. Venture capitalists operate on the concept that the knowledge workers can create billions out of millions. Only soft ware industry provides scope for entrepreneurs who can really make it big just based on innovative ideas. Net entrepreneurs are mushrooming with enterprises dealing with B2B and B2C ventures. The ventures, which have a strong revenue model, have sustained growth. The models, which are fundamentally strong, show phenomenal growth, being adopted by venture capitalists. This is yet another factor to be considered for retaining executives. A company can retain such people by offering stock share, or playing mentor for the subsequent venture conceived by their senior executives. With in the leadership grid a company should promote innovative ideas of senior executives as a matter of policy.

Any human resource strategy should be based on acquisition, development, motivation and maintenance [13]. Though these are highly generic in nature, they play an important role with variations in the IT companies.

Acquisition of manpower has become very ferocious. Walk-in interviews, employment fairs, head hunting, body shopping came into force more aggressive than ever. Employment in IT sector is breaking all traditional norms. The non-formal, non-collegiate qualifications are coming into forefront. Skills which are readily employable are sought more than the skills supposedly, got from formal stream of education. Research and Development has become an integral part of job design.

While luring executives from one company to another, there are agencies advocating shifting people in teams. It is found that a team working on projects over a period of time tend to develop higher productivity and harmonious relationships. Perhaps

the day is not far when a company will encourage teams being formed by family, spouse/adult children or choice peers. With progressive decentralization of work place such change will enhance the QWL in its natural surroundings.

Software companies are looking more like arcades and clubhouses. Offices now provide place and time to relax together with work. With working hours stretching as per need and international clients, the insistence on rigidly defined working hours is becoming less.

The remuneration standard in the IT sector is non-conventional, the work is so involving that the executives routinely over live traditional nine to five office timings. The flexibility provides freedom to the executives with out hampering productivity.

There is a need for decentralizing workspace. This will greatly reduce time and energy lost in commuting. The privacy of one's own choice space will bring the best out of the employee. With the development of communication technology and internet, it will be possible to create decentralized terminals of work. The working teams will draw personnel from the local area. The corporate office will be central node for marketing administration, governance, coordination and integration. The development terminals may have autonomy of employment, training and motivation. The teams will be more cohesive because they are small.

Stock options are offered as additional incentive packages. The ownership of the company by executives is fast becoming popular in the IT sector. It makes the top executives act as owners more than simple mangers. Such democratic capital increases the stake of senior executives in the company and also their participative role. The value of the stock being related to the performance of the company, there is larger incentive for enhanced efficiency.

There is another angle to stock options. It is not necessary that stock options should necessarily increase productivity.   Among executives, ownership pattern is often encouraged. The top executives are lured into increasing stock share at every opportune movement. There is resistance to insistence of stock option offered as apart of corporate policy 6. It is at a cost of top executives becoming averse to risk taking. It differentiates the pure managerial function and proprietary objectives.

401k status plan is most discussed policy in US. A scheme similar to this can be adapted in the Indian context. The kind of fiscal laws India practices, 401k status plan will prove to be an incentive.

In 1978, section 401k of the Internal Revenue Code of US, authorized the use of a new type of Defined Contribution retirement savings plan for the benefit of employees of most private firms. 401k plans offer advantageous tax-deferred status to employee and employer contributions.

401k plans may permit participant directed individual stock transactions and company stock purchase within the plan. Employees are immediately 100% vested with their own salary reduction tax deferred contributions.

401k plans have proven to be popular with employees for several reasons. The tax deferral is obviously high. Increasing portability of this plan, employer's matching contributions, and the increased control associated with self-direction of investments made the scheme a success.

Programs should be developed to increase the investment in workplace learning. It should include new employee orientations, career counseling programs, mentoring

programs and distance learning programs. A company should foster career resource center dealing with mentoring programs to help employees gain exposure to the information and skills required for successful career management.

To improve diversity of management programs the HR department should have permanent cell to provide information and conduct workshops. The activities should actively consider recruitment and retention workshops, management of change and transition. Software industry with high manpower turn over, such activities should be on a regular basis.

QWL is a dynamic phenomenon. Integrating working life with corporate policy will enable the HR department fulfill its objective. The IT sector is known for breaking all traditional norms of HRD and initiating new practices. Foresight, innovative strategies and proactive management can only match the expectations of the manpower. The pursuit for the best possible corporate ambiance is continuous.

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