Social Innovation and Business Trends in the Future

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Abstract This research is a part of Doctoral work to investigate and attempt to predict of social movement and business trends in the future. Specifically, the purpose of this paper is to examine the importance of the present and predicted future social and global trends. In order to achieve this, the research focuses on two issues: An overview of how today's, global issues and social trends will continue into the future；A discussion of how current quality management principles will be affected by these trends. In addition, the researchers have expanded the view of business trends to include the predicted future business trends, which the researchers have categorized as 'future context'. Consequently, sixteen drivers are established as future context review. Further, the potential impact of the corresponding future context on the corresponding current quality management principles are being map in the matrix. In which seven quality management principles are tested in this study. Additionally, this research reveal the transition dynamic of future context, which reflects the predicted movement of future changes that may impact on the current quality management principles as they are today. Article type: Conceptual Paper
Key words future context, future social, future business trends, web 2.0, open source movement

1 Introduction

As distance is no longer an obstacle to the accessing of information. The business environment is fuzzy with unclear interrelations and an overlap between the player and the roles. Increasing globalisation [1], proprietary and intellectual properties [2] legal and contract [3, 4], bureaucracy [5-7], loyal customer orientation [8, 9] and innovation [10-14] are among the driving factors of the current business agenda. On the other hand, the world is changing so fast with new trends emerging. In saying that, this paper specifically aims to examine the importance of the present and predicted future social and global trends. In order to achieve this, the researcher will focus on two issues:-

(1) An overview of how today's, global issues and social trends will continue into the future.

(2) A discussion of how current quality management principles will be affected by these trends.

Further, this paper answers the potential of social innovation, Web 2.0 and Open Source movement and its affect in the future. As such, this paper aim is to analyze, organize and structure knowledge from an academic standpoint and offer potential prediction for future research. The structure of this article is as follows. Section Two discusses a view of relevant literature on social innovation and business environmental over time. Then, Section Three focuses on the potential impact of the corresponding 'future context' on the corresponding current operation principles. Consequently, sixteen drivers are established as future context review. In which seven quality management principles are adopted in the context of this study. Finally, Section Four concludes with a description of an agenda for future research in the future.

2 Future Context

Malone [15] claims that the progress of business trends can be tracked back by looking at the business pattern. He notes that business pattern has shifted from small business (independent, e.g., family business) to corporate business hierarchies (centralized, e.g., merger) and more recently to business networks (decentralized, e.g., networked organisation) [15].

Consequently, the researcher has expanded the view of business trends to include the predicted future business trends, which the researcher has categorized as 'future context'. The researcher has defined future context in terms of business trends, globalisation and social issues (see also [1, 15, 16]). The focus is on the transition (e.g. the effect of the transition) of the evolving trends from present to the future.

Further, Table 1 briefly describes the transition dynamics of future context, which reflects the

predicted movement of future changes. While Table 2 illustrates how the predicted future changes shown in Table 1 and Figure 1 may impact on the current quality management principles as they are today.

Table 1 Predicted Changes in Business and Social Environment

Dynamic Transition	Descriptions
Web 1.0 to Web 2.0	This transition is from a passive web based technology to a participative social networking web. Web 2.0 provides the platform for participation, collaboration and creativity allowing more people to share their ideas and in more ways.
Ideas and actions originating from the network rather than internally	The transition is where the ideas and actions are not solely built up within the organisation but across the network as well.
Central Regulation to Self Regulation	This transition is from a wide span of control to self managed, self controlled, self organised processes and decision making where the individual is given more freedom in performing his/her task.
Contract to Trust	This transition is from formal or legal procedures to relationships based on trust. Trust becomes the main driver for every player to contribute and share their thoughts for relational improvement.
Legal Regulation to Moral Regulation	The transition is where the relationship is no longer bound solely by procedures and regulation and where there is a greater emphasis on morality. People prefer to make morally correct choices and actions (i.e. doing the 'right thing').
Increasing Transparency	This transition is from closed to open intellectual properties. The concept of transparency is linked to openness and is described as a required condition for rebuilding trust and commitment in relationships. The higher the level of openness and sharing, the greater the transparency achieved.
Proprietary to Open Source	This transition is from the principle of closed source based on a profit motive to the principle of open source based on a non profit motive. The transition line is where the rights of ownership are waived and the public are allowed to share and given access.
Copyright to Copyleft	This transition is from legal rights protection to the waiving of certain public rights. A particular example of Copyleft is the General Public Licence.
Increasing Emphasis on Innovation	The transition line is on the emphasis of innovation in networking where innovation comes in the form of open source innovation as the result of across the network participation and collaboration.
Bureaucracy to Netocracy	This transition is from hierarchical, procedural and rigid structures to flat, loose and flexible structures. Netocracy in the context of social governing reflects the idea of moving from an industrial society where social values are money driven to a humanitarian society which is knowledge driven.
Clear Organisational Boundaries to Fuzzy Organisational Boundaries	This transition line is from formal and clear organisational boundaries to loose and fuzzy organisational boundaries. This will allow businesses to become more responsive and enhance their ability to change.
Increasing Emphasis on Community Opinion	The transition line reflects the idea of increasing the emphasis on community opinion with the objective of gaining peer recognition, reputation and community prestige
Increasing Emphasis on Continuous Learning	The transition line reflects the idea of increasing the emphasis on learning opportunities and enhancing knowledge literacy mainly through the network. The fastest way for learning is through conversation, blogs and web.
Increasing Emphasis on Corporate Social and Environmental Responsibility	The transition line suggests that businesses go beyond money making via commercial activities and make a commitment to the well-being of the community. e.g. ISO 26000 (Social Responsibility).
Loyal Customers to Picky/Curious Customers	The transition line is where customers have become more educated especially the younger generation and so have become highly selective and curious in choosing products or services.
Increasing Pace of Change	The transition line reflects the pull of ideas for improving and rectifying problems more quickly, as the result of breeding ideas and solutions mainly through the network.

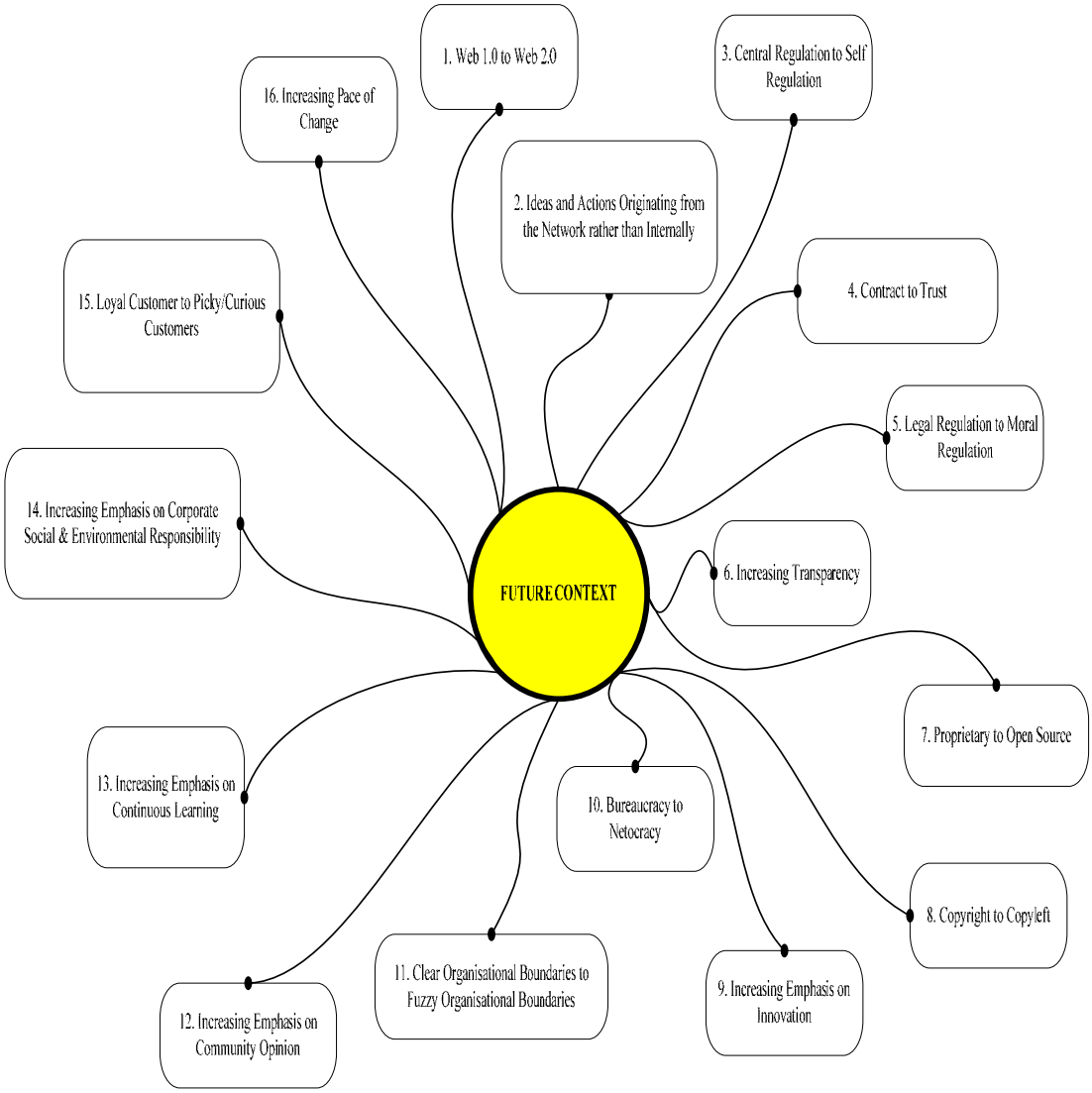

Figure 1 Mind Map of Future Context

Table 2 Putting Current Quality Management Principles in Future Context

	Future Context															
Principles	(1) Web 1.0 to Web 2.0	(2) Ideas & Actions Originating from the Network rather than Internally	(3) Central Regulation to Self Regulation	(4) Relational Contract to Relational Trust	(5) Legal Regulation to Moral Regulation	(6) Increasing Transparency	(7) Proprietary to Open Source	(8) Copyright to Copyleft	(9) Increasing Emphasis on Innovation	(10) Bureaucracy to Netocracy	(11) Clear Organisation to Fuzzy Organisation Boundaries	(12) Increasing Emphasis on Community Opinion	(13) Increasing Emphasis on Continuous Learning	(14) Increasing Corporate Social & Environmental Responsibility	(15) Loyal Customer to Picky/Curious Customers	(16) Increasing Pace of Change
Continual Improvement	x	x	x	x	x	x	x	x	x	-	-	x	x	x	x	x
Management Understanding	x	-	x	x	-	x	-	-	x	x	x	-	x	x	-	x
Customer Orientation	x	-	x	x	-	x	x	-	x	-	-	x	x	x	x	x
Leadership	-	-	x	-	-	x	-	-	x	x	x	x	-	x	-	x
Supplier Relationships	x	-	-	x	-	x	x	-	x	-	-	-	x	-	-	x
Process Management	x	x	x	x	x	x	x	x	x	-	-	x	x	-	-	x
System Management	x	x	x	x	x	x	x	x	x	-	-	x	x	-	-	x

(x) Identifies the potential impact of the corresponding future context on the corresponding current quality management principles

3 The Potential Impact of the Corresponding Future Context on the Corresponding Current Quality Management Principles

More specifically, for the means of this paper the researcher presents seven quality management principles. Table 3 briefly describes the Quality Management principles as they are today:-

(1) Continual Improvement
(2) Management Understanding
(3) Customer Orientation
(4) Leadership
(5) Supplier Relationship
(6) Process Management
(7) System Management

Table 3 Description of Quality Management principles

Principles	Descriptions
Continual Improvement	Continual improvement is the key to long-term success and high performance. Successful managers recognise that processes must be reviewed and improved continuously to ensure that their organisation stays competitive
Management Understanding	Management understanding is about people in management and what management perceives under the name of quality management
Customer Orientation	Customer orientation is about how an organisation determines the requirement, expectation, and preferences of customers and markets. It also deals with how an organisation builds relationships with customers and determines the key factors that lead to customer acquisition, satisfaction, retention and to business expansion
Leadership	Leadership is about how leader address values, directions, and performance expectation as well as their focus on customers and other stakeholders, empowerment, innovation and learning
Supplier Relationship	Supplier relationship is about how organisation work closely with their suppliers in which to ensure that both the organisation and the supplier are better able to achieve success
Process Management	Every operational activity is perceived as a process in Quality Management. Organisation need to manage all their activities as a processes
System Management	Processes are interrelated and that, in addition to being managed individually. They must be managed within an overall system

The researcher believes that these principles will have the greatest impact on the future of Quality Management principles. This idea is in line with Hamel where in his recent book 'The Future of Management' he insists that embracing new principles is essential for future management [16]. This also aligns with Malone [15] who claims that future work (i.e. networked organisation) is building from principle to practise.

3.1 Principle 1: Continual Improvement

Typical continuous improvement in operation is based on corrective and preventive action. As time goes by, the principle of continuous improvement has shifted from sorting bad to good to the latest development of systematic and habitual continuous improvement and enhancing actions (prevention and improvement) which mean that continuous improvement becomes the culture and practice of employees in the organisation.

It could be anticipated that the next continuous improvement will rely heavily on the future contexts of (see Table 2):-

- Web 1.0 to Web 2.0
- Ideas and actions originating from the network rather than Internally
- Central regulation to self regulation
- Relational contract to relational trust
- Legal regulation to moral regulation
- Increasing transparency
- Proprietary to Open Source
- Copyright to Copyleft
- Increasing emphasis on innovation
- Increasing emphasis on community opinion

- Increasing emphasis on continuous learning
- Increasing emphasis on corporate social and environmental responsibility
- Loyal customer to picky/curious customers
- Increasing pace of chang

The researcher suggests that the next continuous improvement could be named as **Network wide continuous improvement**, which is based on:-

- Habitual
- Self managed
- Transparent
- Open source
- Participative
- Collaborative
- Trust
- Ideas and actions originated across network
- Community opinion
- Continuous learning
- Moral regulation
- Corporate Social and Environmental Responsibility

In the future, continuous improvement could be done across the network where Web 2.0 could provide the platform for participation, collaboration and creativity and allow more people to share ideas in a greater variety of ways. Ideally, the more ideas shared the more opportunity to breed and multiply.

In saying that, the researcher suggests that the next continuous improvement could be done in the manner of '**Participative and Collaborative Improvement'**. Participative improvement in this context is a reflection of the members in a virtual organisation or practise group, who participate and communicate with each other via blogs and organisational web sites. Initially, problems, ideas, quality solutions et cetera are the issues that need to be solved across this network. The synergy of this network leads to the collaborative improvements where particular ideas are put into action and yet to materialise it. For example, members from the practise community share with each other their comments, reviews, and feedbacks on this quality improvement. One of the events happening around is 'Open Source Innovation' where the organisation invites outsiders to comment on their suggested design improvements (e.g., customers).

Thereby the continuous improvement could originate not only from the internal organisation (as in the example suggestion scheme, by *Genba Kaizen* within the organisation) but also across the network. This means that the ideas and actions originate across the network rather than just internally.

Further, the participative and collaborative improvement could be done in the context of relational trust. For example, a well-known free, open content, community-built encyclopaedia with thousands of articles on topic - Wikipedia, is based on the idea that users can add an entry and edit the published information. To a certain degree, this open system reflects the level of trust that is pivotal within the relationship as there is no contract to bind it.

Another example is the eBay community where the transactions and merchandise between the sellers and buyers is based on mutual trust. When the potential buyer wins the bid, she is obliged to pay for the item, which she has purchased once she has agreed on the method of payment. The seller permits her to pay through either 'Pay Pal' or a cheque. Once she has made the payment, there is a promise that the item will to be sent to her.

Furthermore, eBay promotes the idea that the user is a contributor. Rather than central regulation eBay use self regulation (self-managed). eBay allows its users to publish a review, leave comments and participate in the reputation evaluation that ranks both sellers and buyers. Inevitably, good comments will help build a good profile and she will be ranked on the stars that she has obtained. A good profile reflects her trustworthiness and increases her reputation. These two driving forces; trust and self-regulation are promising for the future and potentially improving quality management for service based companies in the virtual world.

On the other hand, it can be argued that the idea of continuous improvement will no longer be bound by legal contracts. What matters now is transparency and the resulting increase in morality, as

people are predisposed to make choices for the higher good (morality) including making improvements. Ideally as transparency increases there will be more trust.

Transparency is a required condition for rebuilding trust and commitment in the relationship. The concept of transparency is linked to openness and is described as being both a relational characteristic as well as an environmental condition for organizational processes. …Transparency was a critical condition for rebuilding trust (Julia Jahansoozi [17]).

Further, continuous improvement in an open source context creates more opportunities for developing and exploring new innovative ideas. The open source movement brings the ideas of participation, collaboration and creativity to our social structure. This waives the orthodox idea of proprietary and copyright and gives way to the new domain of copyleft.

Ulhøi [2] claims that the open source movement grew out of the principle of closed source (for example, protection of intellectual rights and private investment was motivated by profit), the latter is based on the principle of open source and commonly owned goods, as goods based on non-profit motives [2].

Contrary to the closed-source innovation model, the problem of free riding is not a concern for open source innovators since their personal gains are considerably higher than those of free riders [18]. Non-contributors or free riders, it seems fair to assume, are unlikely either to acquire social recognition/status or experience any significant learning curve effect. Moreover, open source innovators make no attempt to prevent free riding, which has been one of the concerns of classical collective action theorists [19].

Psychological motives are largely based on the premise that some intrinsic motivating factors exist that allows the participants to achieve a degree of personal satisfaction. If the concept, 'the best idea to win' is within the network, then people will be motivated more by peer recognition and community prestige (reputation). This means that the quality continuous improvement movement is placing an increasing emphasis on community opinion. However, some contributors have looked for external rewards by stressing the importance of peer recognition (community of practices) [20]. He argues that such rewards can later be exported to the outside and translated into traditional monetary rewards.

As such, learning opportunities have been proposed as another important driving force [21] where the learning by answering questions from users is a motivating factor for open source software developers. Course learning opportunities provide simultaneously a process of development for contributors and improvement for participators.

If we borrow the definition from Ulhoi [2] which states that 'an innovation refers to any new or significantly improved change resulting from research and development, whether improving existing insights and/or knowledge, or improving the functionality, performance or other value to the user, and/or the exploitation of entrepreneurial opportunities', thus the new improvement of Quality Management in the open source environment will also foster innovation.

Apparently, this network-based movement (Web 2.0 and open source) will reshape the thinking on innovation, it is not solely as formerly a linear process, which started with invention and ended with the market penetration for commercialisation. Now participation and collaboration are integral to innovation, which means that incremental innovation grows naturally out of the participation and collaboration required as a part of networking.

It is suggested that with the evolution of Web 2.0, Open Source and Social Networking, customers have become more educated, especially those of the younger generation, and have become highly selective in choosing products. The continuous improvement via networking involves more customers, and the innovation of open source, gives them the opportunity to satisfy their curiosity and find out more about new products whilst providing suggestions and comments to manufacturers to better meet their needs in the future.

The increase of Corporate Social & Environmental Responsibility obliges the business sector to play a sensible yet not solely for profit oriented role. This includes social and environmentally driven actions, where the business sector has been expected to go beyond its moneymaking and commercial activities to commit to the well-being of the community. This accentuate at any continuous improvement has to be aligned with social and environmental concerns. Castka and Balzarova [22] insist that the new ISO 26000 should be closely aligned with ISO 14000 and requires organisations to develop their management systems around their social responsibility aspects and impacts.

On the other hand, barriers to information and knowledge are falling fast; people in the network should be able to access information quickly to make improvements. Blogs are a good example of this. The improvement via networking provides more cost efficiency as the cost of networking is relatively

cheap or even could be the 'zero cost' compared to other mediums such as telephone line, consultancy and other methods of communication. As a result, the cost of participation is minimal. Of course, the speed of change and response can be faster as everyone learns and participate in quality improvement. This movement has brought what the researcher has called an increasing emphasis on continuous learning.

3.2 Principle 2: Management Understanding

It is predicted that the future context that may affect the management understanding are (see Table 2):

- Web 1.0 to Web 2.0
- Central Regulation to Self Regulation
- Relational Contract to Relational Trust
- Increasing Transparency
- Increasing Emphasis on Innovation
- Bureaucracy to Netocracy
- Clear Organisation to Fuzzy Organisation Boundaries
- Increasing Emphasis on Continuous Learning
- Increasing Emphasis on Corporate Social and Environmental Responsibility
- Increasing Pace of Change

The principle of management understanding in the future could be based on:-

- Cross enterprise self organising teams in which trust, openness and transparency become the managerial philosophy/approach

- Self regulation with respect to innovation improvement tools and techniques facilitating tradable portfolio operational and project roles that tap people's full potential

- People being used as innovative problem solvers

Looking at current business trend companies such as eBay, it is shifting its business model to focus on relational trust. Trust is the element that bonds the seller to the buyer on their sites. More often, this is supported by incremental transparency, from closed to open with relation to intellectual property. Openness will be the sticking point for companies as to how far the organisation is willing to share information and seed knowledge within and outwith the organisation. It is fair to say that cross enterprise self-organising teams in which trust, openness and transparency will become the managerial philosophy and managerial approach for successful companies in the future. As such, management understanding could look at Web 2.0 as the business model to follow as this movement mainly promotes participation, collaboration and self-regulation as the main drives.

Future innovation in the organisation will not just be a linear process. For example, former innovation thinking was from invention to commercialisation. The current context of innovation in the organisation is best described as the way of thinking focused beyond the present to the future where everyone becomes the participator and contributor towards achieving that vision. Ideally, this stimulates more innovators and creative thinkers to commit to the success of the organisation. The new innovative ideas will improve quality management and move from quality improvement to quality innovation.

The researcher considers that 'quality innovation' is a new way of thinking. This highlights the second stage of thinking where quality is not just for improvement alone, but it can transform into quality innovation of improvement. This is where people become the innovative problem solvers.

Future organisations will demand a quick decision in the dissemination of information. As a result of this, the structure of the organisation will not just be based on formal designation and a rigid hierarchical structure (span of control), but the new management structure will reflect the transition to flat, flexible and fuzzy boundaries. This new structure is expected to suit the richness of information within the organisational boundaries. This transition from bureaucracy to netocracy structure reflects the idea of moving from clear organisation to fuzzy organisation boundaries. Ideally, this helps the business become responsive and enhance their operational pace of change.

In addition, people in the organisation will become multi-skilled and enriched with knowledge and therefore people from outside the quality department can contribute to the enhancement of quality management. Thereby, the future management understanding of Quality Management will provide more learning opportunities for an individual in the team and the organisation. As a result, the staffs are given more space and freedom for their development. This also becomes the platform for the staff to increase and equip their knowledge literacy. As such, it is believed that corporate social responsibility (CSR)

would be the focus of the management agenda. The growth of CSR is an indicator that shows the development of these matters.

3.3 Principle 3: Customer Orientation

The future contexts that may affect the principle of customer orientation are (See Table 2):-

- Web 1.0 to Web 2.0
- Central Regulation to Self Regulation
- Relational Contract to Relational Trust
- Increasing Transparency
- Increasing Emphasis on Innovation
- Increasing Emphasis on Continuous Learning
- Increasing Emphasis on Corporate Social and Environmental Responsibility
- Increasing Pace of Change
- Increasing Emphasis on Community Opinion
- Loyal Customer to Picky/Curious Customers
- Proprietary to Open Source

The principle of customer orientation in the future could be based on:

- Customer is part of the network
- Continuous customer engagement and reengagement in the form of collaboration, innovation and learning with the customer in the network

It is anticipated that customer orientation will be more on bilateral relationships. The unilateral relationship involved one-way traffic where producers are the actors to meet and exceed the need of customers without getting much response or review from the customers. For example, customer satisfaction and customer delight (exceeding and providing more value added for customers) where the producers aims to fulfil their customer requirement of their product.

Now the idea is to let the customer take part in the process of improving the product. The customer is therefore involved in the process from the early design of the product to the after sales service. The voice of the customer will predetermine the product or services provided by the producers. Below are the other details of this scenario.

Web 2.0 and Open Source Innovation are the example of a platform that connects more people. Specifically, communicating through blogs. This open source community is the evolving trend that gives opportunities to customers to participate and give comments to producers. As such, Web 2.0 promotes the element of trust and self-regulation by providing and inviting customers to become sellers and buyers at the same time (example given eBay and auto trader). Thus, customers are involved in the business directly and truly become a part of business model.

The social movement puts forward the view that customers should participate actively in the product and services development and share their thoughts and reviews of the products. This two-way communication is believed to increase transparency in the relationship between the producers, suppliers and even customers. In addition, this movement provides a platform for promoting new ideas of innovation and fostering new knowledge.

Thus, this creates a learning process for the producers to learn from customers feedback and vice versa. In the meantime, it also provides opportunities for the producers and customers to increase their knowledge literacy. Therefore, customers become more well informed and demand higher and better quality products and services.

The advantage of this movement is that the quality of the product will be improved and amended faster through the pooling and development of ideas and solutions. Therefore, this is likely to increase the pace of change and the response from the producers and service providers. Occasionally, this may help to mitigate the issues arising from customers complaints and the time of response to solution.

Overall, it may be fair to say that producers will enjoy the benefit of evolving web 2.0 as they gain the trust of their customers (as the customer becomes the contributor and participator in the web). There also needs to be more transparency in dealing with their relations with customers.

Inevitably, the next generation of quality standards might be needed to focus on customers' demands in relation to Corporate Social and Environmental Responsibility for. This would help producers enhance their reputation by making a commitment to environmental concerns and being responsible for corporate matters as producers both listening to and taking account of community opinion.

3.4 Principle 4: Leadership

The future contexts that may affect the principle of leadership are (See Table 2):

- Central Regulation to Self Regulation
- Increasing Emphasis on Community Opinion
- Increasing Transparency
- Increasing Emphasis on Innovation,
- Bureaucracy to Netocracy,
- Clear Organisation to Fuzzy Organisation Boundaries
- Increasing Emphasis on Corporate Social and Environmental Responsibility
- Increasing Pace of Change

The principle of leadership in the future may be based on:-

- Innovative leadership mindset
- Complex system of leadership and coaching

Future leadership is anticipated to be closely related to issues of corporate social and environmental responsibility. This matches with the concern of environmental issues (example given complying with ISO 14000 and ISO 26000).

Another issue will be the focus on innovation where the leader needs to demonstrate that innovation is part of his mindset. Of course, creativity and innovative thinking will have to be promoted in the organisation in order to create more innovators. As such, the next agenda for the quality leadership thinking line will be to enhance reputation and peer recognition through an emphasis community opinion.

In saying that, this may cause the leader to become the role model and quality leadership champion. Therefore, the researcher suggests the next transition of quality leadership can be called, 'Innovative leadership mindset with complex system of leadership and coaching'. As the leadership would not just come from within the organisation as the inspiration of leadership will also come from across the network as part of the coaching process.

A swarm of bees and a school of fish leadership are the metaphors that can describe coaching leadership on the network. As more people seek faster information and solutions through the network, then this leads to the emerging coaching leadership.

More specifically, this metaphor reveals the leader of the network (virtual group of practices) where he/she being referred to by others without having the trappings of power. This means that, this movement is moving to a situation where there is no real leader. Every one can participate and collaborate with each other and the position of leader can be rotated amongst them. This could truly happen if all the members have more or less the same capabilities in the performance of their work. Therefore, leadership in Quality Management needs to consider shifting from bureaucratic to flat structure management. This would help conceptualisation and faster decision making by reducing the unnecessary hurdles (red tape) in an organisation. For example, quality issues such as customer complaints can be channelled to the Quality Manager directly or to the person in charge so that faster action can be taken. Ideally, a fuzzy organisation promotes self-regulation where the workers are given more freedom in the performance of their tasks.

Hence, this leads to an increase in the pace of change and the response from the workers to management and vice versa. In addition, transparency is about a high degree of openness and sharing which leads to successful leadership.

3.5 Principle 5: Supplier Relationship

It is predicted that the future context that may affect the supplier relationship are:

- Web 1.0 to Web 2.0
- Relational Contract to Relational Trust
- Increasing Transparency
- Proprietary to Open Source
- Increasing Emphasis on Innovation
- Increasing Emphasis on Continuous Learning
- Increasing Pace of Change

The next generation of principle supplier relation could be based on supplier involvement in open source improvement activities throughout the network. It is a belief that the principle of involvement would be the foundation for the next supplier relationship principle. The relationship is shifting from supplier relationship to supplier involvement in open source improvement activities throughout the network. This may happen as Web 2.0 and Open Source, specifically say Open Source Innovation provides the platform for suppliers to be more actively involved in the company's activities, such as giving comments and suggestions about the product design and materials for new product development particularly in the early stage.

Ideally, this provides direct two ways communication between the supplier and producers to improve and increase their innovation of product or services provided through the network. Formerly the supplier relationship dilemmas is about make or buy (outsourcing), but now the relationship is shifting to open source innovation where the pivotal idea is to for the supplier to be more involved in the company's activities. This brings in the element of trust and transparency, which is needed to enhance the relationships.

As the supplier becomes well informed about the materials, customer specification, quality work instruction et cetera, this may lead to better supplier relationships. As supplier involvement becomes the norm and the two-way relationship happens regularly and is not just a once off meeting. Crucially miscommunication and misinterpretation can be reduced.

Ideally, this will increase the pace of change and response between the producers and suppliers. For example if the customer requests changes in the product specification, the changes can be expedited (quick response). As a result, this relationship creates learning opportunities and also enhances knowledge literacy between the producers and suppliers.

3.6 Principle 6: Process Management

It is predicted that the future context that may affect the process management are (Refer Table 2):

- Web 1.0 to Web 2.0
- Ideas and Actions Originating from the Network rather than Internally
- Central Regulation to Self Regulation
- Relational Contract to Relational Trust
- Legal Regulation to Moral Regulation
- Increasing Transparency
- Proprietary to Open Source
- Copyright to Copyleft
- Increasing Emphasis on Innovation
- Increasing Emphasis on Community Opinion
- Increasing Emphasis on Continuous Learning
- Increasing Pace of Change

The future principle of process management would be based on:-

- Processes extending beyond organisational boundaries
- Extended processes are managed as an integrated system across a network

In general, every operational activity is perceived as a process in Quality Management. The researcher proposes that the next process management in Quality Management is highly influenced by the developing movement of the networking era. The researcher suggests that this future principle of process management can be referred to as, 'Processes extend beyond organisational boundaries where extended processes are managed as an integrated system across network'.

Ideally, this is the thinking where every single quality process is managed throughout an integrated system (for example production system) where the process of improvement can come from across the network. For example, the development of Web 2.0 has given the opportunities for process management not just to build up internally but to be done across the network as well, as Web 2.0 provides the platform for personal blogs and the evolving open source community and other group practices. Ideally, this can increase innovation through access to the larger pool of innovators across the network. This means that the processes extend beyond organisational boundaries.

An improved process management across the network would be to focus on the process improvement where the free rider or imitation would not be the concern (being more transparent from closed to open intellectual properties). Further, the improvements in the processes are towards sharing the benefit of the goods to the public (copyleft), instead of the former copyright approach. This

ambitious idea does well in the environment in that it moves from legal to moral. Moral in this context means that people are willing to do and share things for the beneficial good. This in line with idiom, 'Doing the right things, right'. The willingness to perform tasks without being instructed where trust becomes the main driver for every player to contribute and share their thoughts on the quality process.

Process Management in the context of self-regulation means that each quality activity is a process that can be self-organised by the quality members. Inevitably, every person can take part in the process improvement, as the process improvement obtains solutions from the greater pool of sources that may also include the expert across the network.

In general, this leads to an increased percentage of success for new processes and a much-reduced percentage of failures. Of course, if more people can gel together, it provides a better learning opportunity, and much improved information being shared to enhance knowledge and in conclusion may increase the pace of change and response to the new process management improvement. Eventually, every new idea that improves the process may contribute to knowledge literacy. Significantly, this may help to speed up the pace of change and the response to problems and provide future solutions for process management.

Further, in the networking community, they may select the best idea to improve the process. Then if the idea is proven, the originator of that particular idea may get the recognition from his/her peers consequently improving his profile and reputation. Looking from a psychological motive, this enhances individual satisfaction of doing things.

3.7 Principle 7: System Management

It is predicted that the future context that may affect the system management are:

- Web 1.0 to Web 2.0
- Ideas and Actions Originating from the Network rather than Internally
- Central Regulation to Self Regulation
- Relational Contract to Relational Trust
- Legal Regulation to Moral Regulation
- Increasing Transparency
- Proprietary to Open Source
- Copyright to Copyleft
- Increasing Emphasis on Innovation
- Increasing Emphasis on Community Opinion
- Increasing Emphasis on Continuous Learning
- Increasing Pace of Change

The future principle of 'the system' would be based on:-

Understanding complex causalities, including people, across the network extended processes.

Formerly in the early era, system management refers to understanding isolated cause and effects in product quality. Now, system management can be perceived as understanding complex causalities, including human factors in that particular system. The researcher proposes that in the future, the principle 'System Management' may be shifting to better understanding complex causalities, including people, across the network extended processes.

In general, process creates the structure of the system where process as a whole is interrelated and generates the system. This is where the researcher considers that the processes are managed as an integrated system, so the principle of 'Process Management' is the foundation for future changes of 'System Management'. Apparently, by putting the principle of system management into the 'future context', it is a belief that the future factors that influence this principle may lie upon extended processes across the network.

4 Conclusions

In conclusion, the pattern of future may look like the new structure of business is heading to network organisation where the main driving force that may foster this move are lie on Web 2.0, Open Source movement and Social Innovation. It is beliefs that the Web 2.0 will act as a platform to support the Open Source development where open sharing and copyleft are the essence of this movement.

In addition, Web 2.0 and Open Source promote and support social to become more innovative which the researcher called as 'Social Innovation'. Significantly, this Social Innovation would be based on the premises of:-

- self regulation
- self organised
- self managed
- collaboration
- contribution
- participation

Apparently, this movement of networking based (web 2.0 and open source) will reshape the new thinking of innovation, it is not solely a linear process, which starts from invention and ends with the market penetration for commercialisation, a former thinking of innovation. Now it is more profound to the participative and collaborative improvement of innovation, which means the incremental emphasis of innovation comes from this participative and collaborative improvement of people as the result of networking. People in the network might be the main driver of the innovation. Although at the moment, it seems that people focus is building around people competencies, for example is the emphasising training and development to build people competency in performing daily job. But in the future, people focus may link more on trust, moral and being transparent are the key drivers that may shape the network movement.

Further, it is concluded that the changes in the future is also depend upon the principles of today. Consequently, current principles are also would be affected by future social and global trends. Ironically, it is fair to say that some of today principles might be not working for tomorrow, which these principles need to be reviewed and where necessary revised, incrementally or radically as appropriate. Therefore, next agenda of research lies on the breakthrough of new principles is the key for the future.

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