An Exploration of the Effects of Total Quality Management Implementation on Organisational Creativity in the Hotel Industry

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Abstract
Rapid changes in the world economy have brought the key challenges of globalisation, high competition, and new technology firmly into focus for all organisations. Many service organisations, including hotels, have responded to these challenges by adopting Total Quality Management (TQM) as a management approach in order to provide new solutions through organisational creativity and innovation as well as established outcomes in terms of productivity and service delivery. A review of the relevant literature has shown that no study has yet addressed the impact of the implementation of TQM in stimulating organisational creativity in organisations in general and in the hotel industry in particular. A small number of studies has focused on the relationship between TQM and innovation but the results are inconclusive in describing that relationship. Therefore, this study sets out to explore the impact of the critical success factors (CSFs) necessary for TQM implementation on organisational creativity in the hotel industry. It aims to present a conceptual framework to explore the nature of the relationship between TQM and organisational creativity, and suggests that the relationship between TQM and organisational creativity is has both a direct and indirect relationship which are mediated by employees’ attitudes and the organisational climate for creativity.

Keywords: TQM, organisational creativity, innovation, productivity, employees’ attitudes, organisational climate for creativity.
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Introduction
Organisations started to adopt TQM as one of a series of productivity improvement programmes in the early 1980s after its success in Japanese organisations in achieving a competitive edge (Kaynak, 2003). TQM rapidly became the preferred management philosophy among organisations in the 1990s, and TQM has been a widely implemented for improving competitiveness, quality and productivity in organisations (Samson and Terziovski, 1999; Karia and Asaari, 2006). Many organisations have already implemented TQM or are planning to implement it (Ho et al., 1999).

At the same time, due to an increasingly competitive business environment, organisations need to become creative organisations (Andriopoulos and Lowe, 2000) in order to develop their products and services through building an organisational environment that encourage creativity (Andriopoulos, 2001). Creativity appears as an important tool to reduce competitive pressure by solving problems and adapting new technologies to overcome external threats (Williams, 2001). Success in organisations is more dependent on creativity and innovation than ever (Wong and Pang, 2003a) as they need to find new methods and products, increase motivation and job satisfaction, more efficiency and strategic thinking at all levels, teamwork, and a greater focus on customer satisfaction (Basadur et al., 2002). Creativity seeks new solutions to product problems, as well better and new solutions to business and customer problems (Mostafa, 2005).

The argument here is that organisations following TQM implementation will become more innovative, developing new products and finding better ways for the production process and consequently enhancing competitiveness (Turchi, 2001). Employee creativity and innovativeness are considered as key requirements for successful TQM implementation (Guimaraes, 1997). The principles of TQM look to create a cultural climate that is necessary for encouraging and adopting innovation in organisations (Montes et al., 2003) but innovation could also be hindered by some forms of TQM implementation (Martinez-Costa and Martinez-Lorente, 2008). The main purpose of this study is to investigate the relationship between TQM and organisational creativity in the hotel industry through the development of a conceptual framework, which includes any mediating factors that might contribute to the relationships between TQM and organisational creativity and recognises the importance of CSFs of TQM implementation to organisational creativity.

Theoretical Background
Total Quality Management (TQM)
The origins of TQM can be traced to 1924 in Japan when Shewhart developed statistical process control (SPC). The origin of the term ‘TQM’ started as a substitute for the term “Total Quality Control (TQC)” that was introduced by Feigenbaum in 1961 simply replacing the word “control” with “management” (Martinez-Lorente et al., 1998). Although quality management was widely practised in Japan in the 1960s and 1970s (Tenner and DeToro, 1992), the TQM term only appeared in 1985 when the US Naval Air Systems Command named its Japanese-style management approach “Total Quality Management”. Thereafter, the term TQM was popularised in business in the second half of the 1980s (Martinez-Lorente et al., 1998). The evolution of the TQM concept started from the base of quality control and led to the development of CSFs for each
stage as shown in Figure 1 (Zairi, 2002).

Many definitions of TQM have been used by researchers, but there is no single uniformly accepted approach (Boon et al., 2007). TQM, for example, has been described (Oakland, 1993) as an approach for enhancing organisational performance as a whole in an organisation, implying more than just quality, but a philosophy, a process and a set of techniques, the implementation of which will achieve customer satisfaction and continuous improvement. Similarly, Antony et al. (2002, p.551) defined TQM as “an integrative management philosophy aimed at continuously improving the performance of products, processes and services to achieve and exceed customer expectations”. This study has adopted a definition of TQM as a “management philosophy which involves a set of principles, tools, and techniques that are used for continuously improving the quality of processes, products, services, and people by involving all employees to achieve superior customer satisfaction.” The key components of TQM have variously been described as: values, techniques, and tools (Hellsten and Klefsjö, 2000); customer focus, employee empowerment, continuous improvement and systematic approaches to management (Khan, 2003); and quality, customer satisfaction, and continuous improvement (Karia and Asaari, 2006).

The critical factors, both “soft factors” and “hard factors” (Sila, 2005), required for TQM implementation have been widely researched. Empirical research by Saraph et al. (1989) is considered to be the first systematic attempt to classify and organise the important critical factors of quality management practice. Based initially on an extensive literature review they developed eight categories (or critical factors) namely: the role of top management leadership, the role of the quality department, training, product/service design, supplier quality management, process management, quality data and reporting, and employee relations. Based on their initial work, their factors have been used partly or fully in many empirical studies that have been conducted since,

TQM was first used in the hotel industry when quality assurance was introduced in the 1980s (Hall, 1990) and then became a popular management technique across the hospitality industry (Baldacchino, 1995) but many hotels were still struggling to understand the real meaning of TQM (Breiter et al., 1995). In the last decade, many hospitality organisations have shown more interest in the concept of TQM (Cannon, 2002). The development of the ‘soft’ aspects of TQM has encouraged TQM implementation in the service organisations since, it is argued that the soft aspects are more amenable in service industries than the harder aspects (Prajogo, 2005) and so TQM has become an essential management philosophy which is used for improving quality, productivity, organisational performance, and organisational efficiency (Yusof and Aspinwall, 2000).

**Organisational Creativity**

The earliest definitions of creativity were based on the concept of the creative individual, when Guilford (1950: P.444) defined creativity as “the abilities that are most characteristics of creative people”. As the field of study developed, attention moved from the individual themselves to the process of creativity as “the generation of novel ideas, without too much regard for their usefulness” (Cook, 1998:P.4). Moving on the field developed an interest not just in the process but in the nature of the outcome from the process and its contribution, which has led to definitions of creativity as “the development of ideas about products, practices, services or procedures that are: novel and potentially useful to the organization” (Shalley et al., 2004; Dewett, 2004: P.257). The development of interest in organisational creativity has expanded the boundaries of study from the individual, to the workings of groups or teams of employees, and the organisation as a whole (Dewett, 2007; Unsworth, 2001; Martins and Terblanche, 2003; Shalley et al., 2004). A definition for organisational creativity as “the generation of new and useful ideas in the work by an individual or team which are evaluated by others” will be adopted for this study.

Individual or team creativity can be seen to consist of three major components - each of which is necessary for creativity in any situation. They are: expertise, creativity skills, and intrinsic task motivation. This underlying individual or team creativity is considered to be a fundamental source for the innovation process within organisations. At the organisational level, creativity and innovation requires three key organisational components, namely an organisational motivation to innovate, resources, and supportive management practices. The integration of individual or team creativity with the organisational work environment leads to organisational creativity, as shown in figure 2 (Amabile, 1997).
Woodman et al. (1993) also confirm that organisational creativity is composed of both creative behaviour and a creative situation or environment. This view is supported by Andriopoulos (2001) who argues that individual creativity is not enough by itself but both individual creativity and organisational creativity are needed to achieve creative organisations. Bharadwaj and Menon (2000) confirm that both individual creativity mechanisms and organisational creativity mechanisms lead to innovation in organisations but the stronger relationship was between organisational creativity mechanisms and innovation.

Organisational creativity therefore can result in outcomes that provide new levels of quality, cost, customer satisfaction, and quantity through changing current developing new methods or new products, and enhancing job satisfaction, motivation, teamwork, strategic thinking, efficiency and customer satisfaction (Basadur et al., 2002; Mostafa, 2005).

There is currently little published research about innovation in the hospitality industry or even the importance of innovation in the industry (Ottenbacher, 2007). Service innovations in the hospitality industry have a wide range starting from complex innovations that produce completely new services to slight modifications of the present services (Ottenbacher and Gnoth, 2005). Wong and Pang (2003b) consider that creativity is a vital factor in the development of the hospitality industry and that the implementation of innovation is an important technique for successful hospitality organisations. They are, therefore, interested in the stimulants to creativity in the
working environment and how hospitality organisations can enhance their employees creativity (Wong and Pang, 2003a). Innovation is seen as a key lever to developing and upgrading operations in hotels (Wong and Ladkin, 2008).

In the service industry, both ‘novel’ and ‘useful’ are essential characteristics for identifying a creative idea (Madjar and Ortiz-Walters, 2008).

**Developing a Conceptual Framework**

This study attempts to investigate the impact of TQM implementation on hotels’ work outcomes in terms to organisational creativity, innovation, and productivity. Since the purpose of this study is to identify CSFs of TQM implementation and to investigate their impact on organisational creativity in the hotel industry. This relationship could be either direct or indirect, and this study will analyse both relationships.

Reviewing the literature on the relationship between TQM and organisational creativity assumes that there is no study has been conducted to investigate that relationship empirically which represents a huge gape in the literature. It also assumes that there are conflicting arguments regarding to the nature of the relationship between TQM and innovation. The previous empirical studies argued strong positive relationships between TQM and employee attitudes, TQM and productivity, organisational climate and employee attitudes, organisational climate and both organisational creativity and productivity. On the other hand, there are insufficient researches in the relationships between TQM and organisational creativity, TQM and organisational climate, employee attitudes and organisational climate, employee attitudes and both organisational creativity and productivity, organisational creativity and productivity, organisational creativity and innovation. These relationships are still not fully understood in organisations in general and in the hotel industry in particular, that requires a need to analyse those relationships.

Therefore, the present study attempts to contribute towards filling a gap in the literature on the relationship between TQM and organisational creativity, a conceptual framework is devised as shown in figure 3. As illustrated in this figure, this framework presents the direct relationships between TQM and work outcomes in terms of organisational creativity, innovation and productivity, as well as the indirect relationships between TQM and work outcomes mediating by organisational climate for creativity and employee attitudes based on reviewing the previous researches on these relationships.
Figure 3: A conceptual framework of the study
• TQM and Work Outcomes

Discussions on the relationship between TQM and organisational creativity do not appear very often in the literature. A revision of the literature shows that most studies concerning the relationship between TQM and innovation rather than organisational creativity. Thus, the literature showed the absence of empirical studies that have investigated completely the relationship between TQM and organisational creativity. Except one study was conducted by Ekvall (2000) revealed that TQM had the middle scores among management practices for stimulating creativity, it appear with a majority of positive responses but quite a few negative. Thus, TQM taking middle positions as creativity stimulators. The findings suggested that TQM is considered as one of the management practices, which stimulates creativity in a positive relationship, and it does not hinder creativity.

The relationship between TQM and innovation appears to have conflicting arguments over time among scholars. Thus, there are two groups of arguments. The first group supports the positive relationship between TQM and innovation. The second group supports the negative relationship. Prajogo and Sohal (2001) concluded that the relationship between TQM and innovation is complex and ambiguous. Organisations that implementing TQM can adapt imported innovations from other organisations, because the willingness of their employees to accept new ideas as a result of the continuous improvement which is promoted by TQM (Martinez–Lorente et al., 1999). Innovation could be stimulated or hindered depend on the way of TQM implementation in organisations (Martinez-Costa and Martinez-Lorente, 2008). Feng et al. (2006) investigated that more organic dimensions of TQM such as people management and leadership are related more to innovation performance, whilst more mechanistic dimensions of TQM such as process management and customer focus are related to quality performance. On the other hand, some components of TQM can help organisations to develop a culture of innovation, and other elements of TQM and innovation are similar to each other such as: continuous improvement and open culture (Singh and Smith, 2004). Thus, the elements of TQM are consistent with the elements of innovation (Montes et al., 2003).

The arguments support the positive relationship between TQM and innovation: these arguments suggest that implementing TQM will provide and create a supportive environment and culture for innovation since TQM includes principles that are congruent with innovation (Prajogo and Sohal, 2001; Hoang et al., 2006; Martinez-Costa and Martinez-Lorente, 2008). TQM can create a cultural climate which is necessary for promoting innovation, and therefore TQM through continuous improvement (CI) promote incremental innovation in organisations (Montes et al., 2003). However, some empirical studies have presented arguments that support the positive relationship between TQM and innovation such as (McAdam et al., 2000; Montes et al. 2003; Prajogo and Sohal, 2003; Perdomo-Ortiz et al. , 2006; Hoang et al., 2006; Santos-Vijande and Alvarez-Gonzalez, 2007; Martinez-Costa and Martinez-Lorente, 2008).

The opposite school of arguments supports the negative relationship between TQM and innovation. Some empirical studies have argued that TQM has negative effects on innovation or there is no relationship. However, the negative arguments do not completely reject that TQM may support and facilitate innovation, and they admitting the positive effects of TQM on innovation but only on a very limited basis. But, it believes that TQM create more disadvantages for innovation rather than support (Hoang et al., 2006). Prajogo and Sohal (2001) investigated that
several scholars provided counter arguments that reject the positive relationship between TQM and innovation (i.e. Lawton and Parasuraman, 1980; Bennett and Cooper, 1981; Hamel and Prahalad, 1994; Lynn et al., 1996; Wind and Mahajan, 1997; Tidd et al., 1997; Slater and Narver, 1998). However, an organisation may focus more on the philosophy of TQM that will create a better environment for innovation, and the same organisation may also focus more on the technical aspects of TQM that will create rigidity to hinder innovation (Prajogo and Sohal, 2001). Thus, the relationship between TQM and innovation is a complicated relationship, which is maybe multidimensional relationship. Singh and Smith (2004) found that there is no a significant relationship between TQM and innovation in a simple relationship, and they suggested that TQM has a complex relationship with innovation. This view is supported by SA and Abrunhosa (2007) indicated that most of the associations among the principles of TQM and different innovation dimensions are not significant.

Quality is an essential component of productivity (Shetty and Buehler, 1985). Quality and productivity can’t be separated, and they can coexist. Thus, increasing quality leads to increase productivity (Shahin, 2008). Quality and productivity can be integrated into a systematic approach. TQM can provide the necessary integration of quality and productivity. Hence, TQM sustains innovative practices that obtain vast gains in both quality and productivity. Producing good quality services/products that achieve customer satisfaction leads to improve productivity. TQM is a powerful tool to continuously improve productivity and customer satisfaction. The successful TQM implementation leads to quality and productivity movement in organisations (Mohanty and Yadav, 1994). Thus, TQM is an essential management philosophy for improving quality and productivity (Karia and Asaari, 2006).

Most previous studies in the relationship between TQM and productivity supported that TQM has a positive relationship with productivity except one study was conducted by Fisher (1990) indicated that TQM had not any significant direct improvements in overall performance of organisation. In the contrast, other studies support a positive relationship between TQM and productivity, which suggest that the TQM implementation leads to increased productivity such as (Golhar and Deshpande, 1999; Al-Khawaldeh, 2001; Rahman and Bullock, 2005; Terzirovski, 2006; Kumar et al., 2009). Overall, TQM has a significant positive relationship with organisation results (including product quality, profitability, share market, and productivity) (Martinez-Costa and Martinez-Lorente, 2008).

• TQM, Employees Attitudes, and Organisational Climate

Despite many studies have been conducted in TQM there is still debate about the effect of TQM on employee attitudes and behaviour. According to quality advocates, TQM can help to create a work environment in which employees would feel more empowered and motivated to participate in improving products/services quality (Turchi, 2001). TQM dose not focus only on the product quality, but also on the employee quality. The successful TQM implementation motivates employees to perform well and remain with the organisation, and highly committed employees contribute more effectively to organisation success and growth (Karia and Asaari, 2006).

Several studies in the literature suggested that TQM leads to positive attitudes due to a positive relationship between TQM and employee attitudes except one study was conducted by Kivimaki
et al. (1997) revealed a negative relationship between TQM and employee attitudes, they found that job satisfaction, innovativeness, and goal clarity were lower in the TQM clinic than in the non-TQM clinics. In the contrast, several scholars supported the positive relationship between TQM and employee attitudes such as (Sommer and Merritt, 1994; Lam, 1995; Guimaraes, 1996; Gardner and Carlopio, 1996; Guimaraes, 1997; Morrow, 1997; Ugboro and Obeng, 2000; Brah et al., 2000; Karia and Ahmad, 2000; Turchi, 2001; Brah et al., 2002; Boon et al., 2005; Karia and Asaari, 2006; Jun et al., 2006; Ooi et al., 2006; Boon et al. 2007; Ooi et al., 2007; Ooi et al., 2008).

The link between TQM and organisational climate is limited in the literature due to no studies were conducted to investigate the impact of TQM on organisational climate. It was found that the relationship between TQM and organisational climate is very limited due to some studies support that organisational climate is required for TQM implementation. Gao (2003) investigated that organisational climate should be considered when implementing new management systems in organisations such as TQM. Kuei et al. (1997) found some striking association between quality management practices and organisational climate. The high quality-tendency organisations tend to have loose organisational structure. They argued that organisational climate and quality management practices are mutually dependent. Thus, organisational climate includes people orientation and organisational structure, which is a major determinant of the quality level that achieved in an organisation. Lin et al. (1999) supported that the different quality-tendency organisations respond differently to organisational climate. Such as high-quality-tendency organisations would be more flexible given all the emphasis on TQM practices. High-quality-tendency organisations give low rate for organisational flexibility show that there is a significant perceived differences on some attributes of organisational climate such as workers relationships, risk-taking, and opportunity handling. Also, the link between employees’ attitudes and organisational climate is very limited in the literature due to no studies were conducted to investigate the impact of employees attitudes on organisational climate. Bedeian et al. (1981) indicated that job satisfaction has a significant inverse relationship with both role conflict and role ambiguity. As well Job satisfaction has a negative association with propensity to leave and tension.

Davidson et al. (2001) investigated highly significant differences existed between hotels on each of dimensions of organisational climate. Several studies investigated the importance of organisational climate as a determinant of organisational outcomes. Organisational climate impacts employee attitudes and behaviour, ultimately, organisational effectiveness. Therefore, organisational climate impacts employee attitudes (i.e. job satisfaction), employee behaviour (i.e. creativity), and organisational context (i.e. productivity, and organisational effectiveness). Most climate theorists support that perceptions significantly impact organisational outcomes and behaviour, such as personal growth, satisfaction, performance, and productivity. Hence, climate acts as a critical link between the individual and the organisation (Griffin, 2001). Organisational climate can be not only providing motivators but also removing de-motivators (Gao, 2003).

Karia and Ahmad (2000) argued that some factors of organisational influence employee attitudes such as teamwork, empowered employees, and organisational trust. Therefore, most studies were conducted to investigate the impact of organisational climate on employee attitudes were revealed a positive relationship such as (Waters, Roach and Batlis, 1974; Lyon and Ivancevich, 1974;
Churchill et al., 1976; Batlis, 1980; Senatra, 1980; Tyagi, 1982; Kline and Boyd, 1991; Griffin, 2001; McMurray et al., 2004; Carless, 2004; Iqbal, 2008; Luthans et al., 2008). Organisational climate impacts organisational performance such as organisational commitment, job satisfaction, employee turnover, occupational stability, and vocational adjustment (Kangis and Williams, 2000). Therefore, organisational climate is an important because it is related to organisational performance.

**Employees Attitudes, Organisational Climate, and Work Outcomes**

Employee attitudes have positive relationship with organisational creativity such as motivation leads to creativity. Mohr (1969) indicated that innovation is viewed as a multiplicative function of the motivation to innovate and the balance between the obstacles and resources bearing upon innovation. Therefore, maintaining employee creativity at work depends on maintaining their intrinsic motivation. In other words, employees’ work that matches well with their strongest intrinsic motivations, creative thinking skills, and expertise will lead to individual creativity (Amabile, 1997). Pascoe et al. (2002) found that job satisfaction impacts motivation to work well and this directly impact employees’ willingness to voice new ideas and their willingness to share corporate knowledge. Innovation and organisational creativity are related to the high levels of job satisfaction (Patel, 2003).

Wang and Casimir (2007) found positive relationships between both types of trust in subordinates and leaders encouraging subordinates to be creative. Dewett (2007) indicated that intrinsic motivation mediates the relationship between certain antecedents and willingness to take risks to creativity, and this willingness mediates the effect of intrinsic motivation on employee creativity. The study confirmed that intrinsic motivation is considered as one fundamental antecedent to employee creativity. Wong and Ladkin (2008) found that the risk-taking dimension of creativity is more associated with the intrinsic job-related motivators. They revealed a relationship between creativity and job-related motivators of employees in hotels. Munoz-Doyague et al. (2008) argued that intrinsic motivation and innovative style have a significant positive impact on employee creativity. Thus, creativity performance among employees is different based on their behaviours. Employee attitudes have a positive relationship with productivity, but the research in this area is very limited. For instance, Guthrie (2001) found a positive relationship between high-involvement work practices and employee retention and organisational productivity.

Organisational context within an organisation plays an important role in stimulating or inhibiting employee creativity (Scott and Bruce, 1994). The role of organisational climate is critical in any process of organisational improvement that requires implanting innovation or organisational change (Davidson, 2000). Thus, organisational climate can play a critical role in enhancing productivity by fostering creativity and innovation (Mathew, 2007). The work environment that allows employees to retain intrinsic motivation, which supports their exploration of new ideas, therefore organisations can create a work environment that fosters the stimulants and downplays the obstacles to creativity (Amabile, 1997). Furthermore, Suliman (2001) indicated that employees’ perceptions of their work climate play a significant role in their readiness to innovate. Lapierre and Giroux (2003) explored that creativity work environment is an important factor to creativity. Wong and Pang (2003a) identified the motivators to creativity in the hotel industry. The results found that employees agreed with essential motivators to creativity, and these motivators were listed in ascending order: training and development; support and motivation from
the top; open policy; recognition; and autonomy and flexibility. Thus, the climate for creativity needs to be responsive to the whole process in organisation (Mostafa, 2005).

Most of the previous empirical studies on the relationship between organisational climate and both organisational creativity and productivity, revealed that organisational climate has a positive relationship with organisational creativity and productivity due to organisational climate can be supportive organisational climate for organisational performance. Mclean (2005) found that several dimensions of organisational climate, associated with the supports or impediments to creativity and innovation. The supports side includes resources, freedom/autonomy, work group encouragement, supervisory encouragement, and organisational encouragement. The impediments side includes control. However, the characteristics of organisational climate that support creativity and innovation are similar.

Amabile et al. (1996) revealed that six out of eight factors of working environment are considered as environmental stimulants to creativity that have a positive relationship with the outcomes of creative work (creativity and productivity) are: freedom, sufficient resources, organisational encouragement, challenging work, work group supports, and supervisory encouragement. The other two factors (organisational impediments and workload pressure) are considered as environmental obstacles to creativity that have a negative relationship with the outcomes of creative work. On the other hand, more challenging jobs and/or complex jobs may be more creative jobs. Thus, all aspects of working environment may naturally impact on creativity; organisations can stimulate creativity by positive work group support and decreasing the workload pressure (Mikdashi, 1999). Similarly, Andriopoulos (2001) identified five main organisational aspects that increase organisational creativity or individual creativity at work place, are: organisational climate, leadership style, organisational culture, resources and skills, and the structure and systems of an organisation.

Ensor et al. (2006) revealed that the UK advertising agencies reinforce three critical variables to facilitate organisational creativity are: organisational encouragement, lack of organisational impediments, and work group supports. Hunter et al. (2007) investigated that the climate dimensions are effective predictors of creative performance. Rasulzada (2007) revealed that the contextual aspects are associated with ratings of organisational creativity and innovation. The context has a significant role in determining the directions of organisational creativity and innovation in an organisation. Thus, organisational climate plays an essential role for creativity and innovation in an organisation, and significant relationships between a creative climate and innovative organisations. Coveney (2008) found positive factors that stimulate creativity are organisational encouragement, supervisory encouragement, work group support, and the absence of organisational impediments.

Overall, organisational climate has many stimulants and obstacles to organisational creativity at individual and organisational level. Therefore, organisational creativity can be enhanced through affecting several factors in an organisational context by providing appropriate work environments that stimulate creativity. However, top management should promote organisational climate that encourage and recognize the efforts of employees towards innovation (Montes et al., 2004). Amabile et al. (2005) provided a consistent evidence of a positive association between positive affect and creativity and no a negative association was argued. The opposite view of the
relationship between organisational climate and creativity that supports organisational climate is not a strong factor in stimulating or inhibiting innovation. For instance, Saleh and Wang (1993) found that the structure of the innovative organisations is more organic and team-oriented than the less innovative organisations, and there is no significant difference between the innovative and the less innovative organisations related to organisational climate.

Productivity is significantly related to some aspects of organisational climate and overall job satisfaction. Productivity was more strongly related to those aspects of climate that had stronger satisfaction. Thus, organisational climate may have an indirect impact on productivity through job satisfaction. But not all the aspects of organisational climate are significantly related to job satisfaction (Patterson et al., 2004). Stimulant dimensions of the work environment for creativity have a positive relationship with both creativity and productivity as argued by Politis (2005); he revealed that the “stimulant” dimensions of the work environment for creativity have a positive significant effect on both creativity and productivity.

**Work Outcomes**

It is necessary to differentiate creativity from innovation. Creativity means the development of potential new and useful ideas, and employees may share these ideas with others. Innovation refers to the application of ideas at organisational level successfully (Amabile, 1996). Creativity is defined as “the production of novel and useful ideas in any domain”, whereas innovation is defined as “the successful implementation of creative ideas within an organization”, and therefore creativity seems to be the seeds to all innovation (Amabile et al., 1996: P.1155). Creativity is considered as the initial phase to innovation process, while innovation refers to the implementation of new and useful ideas successfully (Amabile, 1997). Another argument suggested that creativity is an important input into the substitute generation stage of the innovation process (Ford, 1996). Creativity is treated as part of the organisational climate or culture, and this climate or culture could enhance innovation and performance (Swann and Birke, 2005). The promotion of employee creativity and the generation of new-ideas are considered the key factors, which are necessary to implement innovation (Montes et al., 2003). High levels of employee productivity and creativity are required for developing new services and products and continuously improve internal processes (Forbes and Domm, 2004).

On the other hand, creativity and innovation concepts are frequently employed interchangeably in the literature (Awamleh, 1994; Martins and Terblanche, 2003; Mostafa, 2005). Creativity and innovation are very much linked in individuals minds as one term and they use these terms interchangeably. Thus, one argument stated that creativity and innovation are fundamentally the same phenomenon, but they take place at various levels of analysis (Ford, 1996). The other argument stated that the concepts of creativity and innovation are commonly phrased together because they are linked to each other even there are some differences in their meanings (Coveney, 2008).

Several researchers such as (West, 2002; Rank et al., 2004; Flaatin, 2007) stated that innovation consists of two stages are idea generation stage and idea implementation stage. Creativity refers to ideas generation, whereas innovation implies ideas transformation into new products or services. Thus, innovation is the implementation of creativity results, and that means creativity is part of the innovation process (Alves et al., 2007). Although the absence of empirical studies have
investigated the relationship between creativity and innovation. Heunks (1998) supported that creativity is related to innovation, he investigated that creativity has a significant positive relationship with product innovation in old organisations (over 32 years old), but creativity may foster process innovation. Creativity tends to have some specific personal backgrounds: risk taking, challenges and entrepreneurship. Whereas, innovation has some specific: risk taking, education, self confidence, future orientation, leadership external capital and information. Thus, risk taking is the only personal background that shares between creativity and innovation.

The number of empirical studies in the link between organisational and productivity is very limited. A study was conducted by Heunks (1998) found that creativity impacts productivity directly, and that impact is partially indirect through innovation. This means that innovation plays an intermediate role in the relationship between creativity and increasing productivity. Only few studies stated that there is a high correlation between creativity and productivity (i.e. Amabile, 1997; Tierney et al., 1999; Suh, 2002). Other studies explored a correlation between creativity and productivity as dependent variables (i.e. Amabile et al., 1996; Mikdashi, 1999; Politis, 2005; Enser et al., 2006; Coveney, 2008) through investigating the impact of organisational climate on work outcomes (creativity and productivity), and they found a positive relationship between organisational climate and both creativity and productivity. Forbes and Domm (2004) argued that creativity is both positively and significantly related to productivity. Creativity enhances productivity and performance through research and development which is turn into innovation (Swann and Birke, 2005).

Hypotheses Development

The current study will analyse the relationship between TQM and work outcomes in terms of organisational creativity, innovation and productivity. As well, the relationship between TQM implementation and both employee attitudes and organisational climate for creativity will be evaluated, also the impacts of organisational climate and employee attitudes on organisational creativity and productivity.

In order to fit the gap in the literature, the present study suggests a proposed model based on the conceptual framework of this study as discussed previously. Thus, the hypotheses were developed as shown in figure 4, and this figure displays the following hypotheses:

H1: There is a positive relationship between TQM and work outcomes (including organisational creativity, innovation and productivity).
H2: There is a positive relationship between TQM and employees’ attitudes.
H3: There is a positive relationship between TQM and organisational climate.
H4: There is a positive relationship between employees’ attitudes and organisational climate.
H5: There is a positive relationship between employees’ attitudes and organisational creativity and productivity.
H6: There is a positive relationship between organisational climate and employees attitudes.
H7: There is a positive relationship between organisational climate, and organisational creativity and productivity.

Figure 4: A proposed model of the study
To date, there are no studies investigating the direct impact of TQM implementation on organisational creativity. The relationship between TQM and innovation has inconsistent results. The arguments that support a positive relationship between TQM and innovation based on the TQM implementation provides a suitable environment for innovation due to TQM involves some principles that are congruent with innovation. In the contrast, other scholars support the negative relationship between TQM and innovation due to some principles and practices that could hinder innovation (Prajogo and Sohal, 2003). Whereas, the relevant literature supports that TQM has a positive relationship with productivity.

The present study tries to identify CSFs of TQM implementation that support organisational creativity, and determine the degree of TQM implementation and its relationship with organisational creativity. This study will examine the impacts of mediators (employee attitudes and organisational climate) in the relationship between TQM implementation and organisational creativity.

The importance of TQM can show through enhancing organisational creativity directly through implementing TQM practices (such as teamwork, empowerment, involvement, continuance improvement, and customer focus), and indirectly through creating positive employees attitudes (including job satisfaction, motivation, and organisational commitment) and creating supportive organisational climate for creativity (including trust, organisational encouragement, organisational support, group work support, risk taking, and lack organisational impediments). Consequently, TQM could be in a direct or indirect relationship with organisational creativity. TQM is one of the most important management practices since it stimulates creativity and improves productivity, and therefore TQM creates some changes in organisational context that promote positive employees attitudes and improve organisational climate.
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Critical Success Factors of TQM Implementation

1. Soft Factors

Employees Attitudes
1. Job satisfaction
2. Organisational commitment
3. Motivation

Dimensions of the creativity work environment
• Stimulant Factors (+)
1. Encouragement for creativity
2. Freedom
3. Sufficient resources
4. Challenging work

• Obstacle Factors (-)
1. Workload pressure
2. Organisational impediments

Work Outcomes

1. Organisational Creativity
2. Innovation

3. Productivity

(+ with Organisational Creativity (Not investigating)
(+-) Inconsistent results with Innovation
(+ Relationship with Productivity

+ 

+ 

(+ But not strong support

+ 

(+ But not clear

(+ But not strong support

Figure 1: From individual creativity to organisational creativity

Figure 1: The evolution from quality control to TQM

H7 (+)

H6 (+)

H5 (+)

H4 (+)

H3 (+)
H2 (+)

H1 (+)

Work Outcomes

• Organisational Creativity
• Innovation
• Productivity

Creativity Work Environment

Employees Attitudes

Critical Success Factors of TQM Implementation

• Soft factors
• Hard factors