

TQM Components as a Source of Competitive Advantage in a Beverage Organization: A Resource Based View

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ABSTRACT

This study reports on a case study of TQM adoption in searching for answers of why and how organizations adopt such approaches to gain competitive advantages within a Bangladeshi beverage company. It focuses organizational approaches to adopt TQM as a strategic option and the subsequent changes in organizational set-up. Moreover, using the resource-based theory, this study explores what TQM components help achieving competitive advantage. Findings reveal that due to the change in customer requirements in respect to tastes and quality; and increased price pressure led the case organization to adopt TQM. The result shows that the case organization has brought a series of changes in adopting TQM including appointing a consultant; encouraging a culture of continuous learning; developing a mechanism of communicating information; involving top management along with the employees in the improvement process; and emphasizing the use of teams. Following the resource-based view, findings show that the adoption of TQM helped the case organization in identifying its capabilities that facilitated the achievement of competitive advantage. The findings may help other organizations to learn lesson from the case organization through the identification of tacit resources that are generated by a TQM initiative.

KEYWORDS

Competitive Advantage, Resource -Based View, Total Quality Management, TQM

INTRODUCTION

Increased customer sophistication and the globalization of business activities are forcing organizations to re-engineer their cultures, operations and systems to support customer-focused and quality-driven competitive business strategies. Accordingly, organizations adopt quality management (QM) practices including total quality management (TQM) in support of strategic choices (Ferdousi et al., 2016; Flynn et al., 1995; and Prasad, 1998; Powell, 1995). TQM is a holistic approach directed toward continuous improvement of the quality of products and services as well as the processes in order to

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meet or exceed customer expectations (Baird et al., 2011; Prajogo & McDermott, 2005; Kiella & Golhar, 1997). It “is an approach for doing business that attempts to maximize the competitiveness of an organization through the continual improvement of the quality of its products, services, people, processes, and environments” (Goetsch & Davis, 1995, p. 6). In TQM, the search for improvement is a never-ending process. The continuous search for improvement requires the full participation and involvement of all stakeholders of the organization, including managers, employees, suppliers, and customers, without whose support the TQM effort would be fruitless (Mersha, 1997). Literature reveals that organizations adopt TQM to get various benefits including improved internal communication, better problem-solving, greater employee commitment and motivation, stronger relationships with suppliers, better understanding of customers’ needs, improved customer satisfaction, fewer errors and reduced waste, productivity improvements, cost reductions, minimization of defects, and improvements in quality (Haar & Spell, 2008).

While there are some studies (Ferdousi et al., 2016; Zhang et al., 2000; Ismail, 1998; Islam & Haque, 2012) that have focused on the adoption of TQM, there are some studies that have focused on identifying the components of TQM (Table 1).

However, a large number of studies have focused on the association between the adoption of TQM and organizational performance (Hung et al., 2011; Feng et al., 2006; Demirbag et al., 2006; Prajogo, 2005; Yusuf et al., 2007; Chong & Rundus, 2004; Kaynak, 2003; Samson & Terziovski, 1999; Terziovski & Samson, 1999). There are only few studies (Ferdousi et al., 2019; Ferdousi et al. 2018; Agus & Hassan, 2011; Shenawy et al., 2007; Douglas & Judge, 2001; Reed et al., 2000; Flynn et al., 1995; Powell, 1995) examined the association between TQM adoption and competitive advantage. However, some studies (Douglas & Judge, 2001; Reed et al., 2000; Flynn et al., 1995; Powell, 1995) focused on identifying the relationship between TQM components and competitive advantage. These studies have looked at the TQM components such as involvement of top management, adoption of a quality philosophy, an emphasis on quality-oriented training, a focus on the customer, a policy of continuous improvement that supports a successful quality philosophy, organizational culture,

Table 1. Literature on TQM components

| TQM Components | Author's and Year |
|--|---|
| Top management support Top management support | Ferdousi et al. 2019; Talib et al., 2013; Zehir et al., 2012; Abusa, 2011; Saleheldin, 2009; Pinho, 2008; Vijande & Gonzale, 2007; Feng et al., 2006; Hoang et al., 2006; Demirbag et al., 2006; Sila & Ebrahimpour, 2005; Sohail & Hoong, 2003; Sharma & Gadenne, 2002; Agus & Abdullah, 2000; Saraph et al., 1989; Powell, 1995 |
| Employee involvement Employee involvement | Ferdousi et al. 2019; Fotopoulos & Psomas, 2010; Saleheldin, 2009; Sohail & Hoong, 2003; Sharma and Gadenne, 2002 |
| Employee empowerment Employee empowerment | Saleheldin, 2009; Kapuge & Smith, 2007; Sohail & Hoong, 2003; Powell, 1995 |
| Customer focus Customer focus | Ferdousi et al. 2019; Basu & Bholap 2016; Zehir et al., 2012; Kapuge & Smith, 2007; Feng et al., 2006; Sila & Ebrahimpour, 2005; Agus & Abdullah, 2000; Flynn et al., 1995 |
| Training Training | Ferdousi et al., 2019; Basu & Bholap, 2016; Agus & Abdullah, 2000 |
| Reward and recognition Reward and recognition | Ferdousi et al. 2019; Zhang et al., 2000 |
| Culture | Baird et al., 2011; Pinho, 2008 |

education and training, reward systems, and employee involvement that facilitated the achievement of competitive advantage.

In this respect, Reed et al. (2000) argue that the process of TQM has the potential to create sustained competitive advantage. Similarly, Douglas & Judge (2001) found an association between the extent of adoption of TQM practices and competitive advantage. In this respect, Powell (1995) for instance, examined TQM factors as a potential source of sustainable competitive advantage and found that an open culture, employee empowerment and executive commitment can produce competitive advantage. Similarly, Shenawy et al. (2007) found an association between various TQM factors including top management commitment/leadership, teams, culture, training/education, and process efficiency and competitive advantage.

However, there are only few studies (Ferdousi et al., 2019; Tena et al. 2001; Korankye, 2013; Collin & Elliott, 2004; Min et al. 2016) that have examined the association between TQM and Competitive advantage from a resource-based perspective. Researchers have long understood that competitive advantage depends upon the distinctive internal organizational resources and capabilities and the external environment (Hart, 1995). Both internal and external resources are crucial to competitive success. The firm with valuable resources that are different from and superior to those of competitors has the ability to create competitive position. It is stated that resources must be both rare and valuable (Reed et al. 2000). The resource-based view focuses on the organizations resources that generates operational superiority or help create a superior market position. According to recourse-based view of competitive advantage, organizations competitive advantage relies upon competitors not being able to imitate resources (Reed et al., 2000). That means it is important for organization to create barriers for the competitors. In this respect, Tena et al. contrast the extent to which these TQM-linked resources and competencies are sources of sustainable competitive advantage. Korankye (2013) mentioned that if properly implemented, TQM will be a source of sustained competitive advantage. In this regard Min et al. reveals that that TQM has a significant effect on organizations performance and support the resource-based theory, the underlying theory for the research that views the organizational resources as a source of sustainable competitive advantage.

However, studies (Ferdousi et al., 2019; Tena et al. 2001; Korankye, 2013; Collin & Elliott, 2004) that have focused on the relationship between TQM components and competitive advantage are mostly empirical in nature, little (Collin & Elliott, 2004) is known from a qualitative perspective. Therefore, this study aims to contribute to the literature by providing a detailed understanding on the adoption of TQM and its associated competitive advantage in a manufacturing organization, in particular, beverage organization of a developing country. The beverage manufacturers are found still lagging behind their manufacturing counterparts in terms of their strategic commitment to TQM. The apparent reluctance of beverage organizations to utilize TQM based-strategies is alarming, especially in light of the increased significance of the beverage sector to national and global economies. Hence this study addresses the following research objectives:

1. To identify the reasons for introducing TQM by a beverage organization;
2. To explore how a beverage organization adopt the changes in implementing TQM;
3. To identify the TQM components in achieving competitive advantage.

METHOD

In an attempt to understand the reality of Beverage industry's quality initiatives, a case study in a large local organization was conducted through a structured interview approach. Food and beverage industry are one of the fastest growing industries around the world. Food and beverage industry in Bangladesh are a potential sector and growing rapidly since 2000. This industry alone makes up 22% of the total manufacturing production in the country and around 2.45% of the country's total labor force. The beverage industry experienced a drop in 2007 because of political uncertainty, slowdown

in investment and crackdown on illegal roadside outlets. Moreover, few more issues in Bangladesh are holding back this industry, such as high barrier to entry, corruption in the controlling quality and lack of technological development. Given the importance of this industry, interviews were conducted on a beverage organization of Bangladesh.

The case organization was chosen because of its high impact on national economy. The case organization (hereafter SP Ltd.) was identified through available information in the website and its popularity in the beverage sector.

Participants

Ten relevant managers from different departments and two top managers (Table 2) were interviewed using an interview schedule (interview schedule has adopted from Ferdousi et al., 2016, see Appendix).

Procedure

With prior permission, interviews were all recorded in the audio tape recorder. With a view to adhere ethical standards, first contact was made over the telephone. With prior consent each interview was conducted in the premise of the organization. A consent form was used to obtain the consent from the participants. It was mentioned in the consent form that the identity of the organization as well as participants will be kept anonymous. Moreover, those who were not comfortable in keeping audio record, information was collected by taking notes. Interviews were continued until the repetition of responses. Data were analyzed using NviVo software. However, keeping the importance of validity and reliability issues, interviews were also compared with the documents collected from various sources including the observation. Along with the interview data, documents were also checked to ensure validity. Authentic data sources and archival documents were used to ensure the reliability. Moreover, the authorization to perform ‘case study’ was obtained from the concerned organization.

RESULTS

The Company Overview and Its Context

SP Ltd. a unit of a giant beverage manufacturer of Bangladesh started its operation in the year 2006. SP Ltd. manufactures a wide variety of Beverage including soft drinks and juice for both national & international market. Within a short period of time SP’s soft drinks and juices have received a good position in the market.

Table 2. List of participants

| Respondents | Department | Service Length |
|--------------------|------------------------------------|------------------|
| Consultant | Food and Beverage Unit | --- |
| Vice-President | Food and Beverage Unit | 9 years |
| Manager 1 | Operation/Production Department | 7 years |
| Manager 2 | Human Resource Department | 8.5 years |
| Manager 3 | Merchandising Department | 8 years 1 months |
| Manager 4 | Quality Control Department | 7 years |
| Manager 5 | Production Department | 6 years 2 months |
| Manager 6 | Supply Chain Management Department | 8 years |
| Manager 7 | Quality Control Department | 5 years |
| Manager 8 | Production Department | 12 years |
| Manager 9 | Merchandising Department | 6 years |
| Manager 10 | Quality Control Department | 7 years |
| Quality Supervisor | Quality Assurance Department | 5 years 4 months |
| Quality In charge | Quality Assurance Department | 6 years |

Participants view suggests that along with strong competition from foreign brands, some local brands were already positioned themselves as a producer of good quality and great taste. While quality was a key concern for SP Ltd., the existing pattern of competition was also found as an extra pressure to establish its position under such competition. Moreover, competitors led some misleading information about SP's ingredients, which caused a significant dissatisfaction among customers. Consequently, customers raised their concern regarding quality in terms of ingredients, dietary needs, health nutrition etc. Under such circumstances, SP Ltd. was more eager to rebuild the customers' reliability through improving the existing products into a tastier, desirable and quality product which is better than their competitors. Therefore, the organization was inclined to adopt a rigorous quality approach in order to observe a company-wide improvement. In line with that, there was a series of meetings held by the company top management in identifying a best approach that can significantly and consistently improve quality of products.

In this respect, the Vice-President expressed that:

As our company was not ready to compromise with quality, we therefore, tried to respond to customers' requirement as quick as possible to rebuild customers' reliability.

It is stated by Quality Control Supervisor:

While our customers were showing little dissatisfaction about taste and packaging of our drinks, the top management realized the need for adopting a quality improvement system [approach] which can help in developing customers' desired product.

According to Manager 7, along with quality and taste, the case company was also facing price pressure from the competitors which led to reduce the production cost. Therefore, the concern of SP Ltd. was not only for quality but also for price. In this respect, the price pressure was also mentioned as another reason for adopting TQM.

Transformation to a TQM Enabled Structure

At the beginning, SP Ltd. appointed a consultant with prior training and long-time experience on TQM implementation. From the organizational documents it is found that, at first he developed a framework under which each of the change initiatives took place. Using this framework, the organization conducted a need assessment along with identifying the availability of resources to implement TQM. It is stated by the consultant that the transformation to TQM should not begin until it is aware that the quality of the product must be improved. The need assessment facilitated the company to identify what they have and what they might need to adopt TQM. In this respect, the consultant mentioned that:

it is always important to identify whether any change is required and the organization is fit to undertake this change.

In this regard Manager 8 expressed that:

our existing structure was not fully ready for TQM adoption. But the consultant eases the entire process through his [consultant] guideline.

Participants mentioned that it was not easy for SP Ltd. to develop a TQM supportive environment very quickly but a series of well thought steps facilitated the entire process. Initially, the consultant arranged several meetings with the top managers of SP Ltd. The key reason was to let top managers know their role in TQM initiative. Therefore, it was important to ensure their motivation and involvement in

the TQM adoption process. In line with that, at first the case organization arranged series of discussions and trainings for top managers. These trainings and discussions were required to make managers knowledgeable about the benefits of TQM. Moreover, as mentioned by the participants, the other senior managers were also received extensive training on various TQM tools to facilitate the entire adoption process. It is widely observed that the top management took the leadership role to consistently motivate all levels of employees through creating a clear vision and direction, thereby ensured quality at every level. Moreover, SP Ltd. ensured support among mid-level managers and workers through the top managers. It was found that the long-term experience of top managers was facilitated the company's important decision-making during the change initiatives. However, subsequently, the top management developed a very clear communication and flow of information from the management board to the departmental heads and all other levels of employees, in order to ensure that everybody is informed of what role to play in the TQM adoption process. According to the consultant, TQM is a joint effort, therefore, it is recommended to inform every employee regarding their specific action.

Moreover, the discussion with the Vice-President of SP Ltd. revealed that the up-coming changes were informed to the employees, because their mindset and eagerness to change were few essentials for the implementation of TQM effort. In line with that, Manager 6 mentioned that the employees were forced to participate in various workshops and training. Participants view suggests that these workshops facilitated employees understanding to a great extent.

As indicated by Manager 4 and Manager 9, the continuous trainings were the steps toward establishing a culture where managers and workers were strictly engaged in continuous improvement. In this respect, Vice-President expressed that the development of a quality culture was highly emphasized by the organization which led some changes in the organizational policies, procedures and processes with emphasis of creating customer-oriented product. It was believed that, only quality culture can help organization in instituting and accommodating changes. In this respect, SP Ltd. took some necessary initiations: (a) at the production level, workers were grouped by specific quality targets with a daily reporting system; (b) employees were encouraged to achieve a 'target reward point' that can be redeemed each month; (c) a suggestion box was opened for all to provide their suggestions in particularly, related to quality problem and possible solutions; (d) weekly discussion sessions were arranged to share their progress. In this regard, Manager 8 and Quality in-Charge expressed that, this forced routine engagement assisted employees to accept quality improvement as continuous and everyday process. A monitoring cell was developed to observe and ensure the employee involvement in the quality improvement process. To some extent forced accountability was created to ensure their involvement. Participants view suggests that:

the forced involvement and target to achieve certain reward points led us to institute a new culture of continuous improvement. ... this culture had a significant impact on employees.

Based on changing needs and expectations of customer, SP Ltd. conducted a number of surveys on key customers. In this respect, SP Ltd. developed a feedback form to get feedback of their product from the customers. As mentioned by the supervisor, big retail outlets were instructed to collect regular feedback of the customers to get additional information regarding customer problems and preferences. SP Ltd. also designed a periodical survey with the suppliers in order to ensure raw materials quality. During this process, SP Ltd. discontinued five of their old suppliers while appointed two new suppliers. As mentioned by the Manager 6, SP Ltd. developed a team with three members to visit suppliers on a weekly basis, thereby to minimize low quality ingredients. Over the time, there was a strong relationship developed between the suppliers and SP Ltd. In this respect, Manager 4 mentioned that:

... It became very easy for us to maintain a close and supportive relationship with a small number of suppliers. We had better control on suppliers' quality than before.

However, as a key practice of TQM, the case organization was looking for an easy data keeping system as there was no formal system of keeping quality data in an orderly manner. SP Ltd. used to store data manually with little emphasis. Under the guideline of the consultant, a formal and rigorous system was developed to collect, sort and analyze information. As mentioned by the consultant, this system assisted the company in many ways including maintaining records of ingredients quality, defect rates of produced ingredients, and supplier responsiveness. In this regard the Quality In-Charge expressed that:

the new data keeping system allowed us to get relevant quality related information that facilitated quick decision-making.

Moreover, a procedure for testing and inspection of products was mandatory because the existing inspection system was not that efficient like the new one. According to Manager 11, the existing QC and QA facilitated the new inspection process to a great extent. Under this system, the case organization adopted various statistical practices in improving the inspection process.

TQM Components and Resource Based View

However, as revealed by Manger 2, the company's decision regarding the adoption of TQM facilitated their success. As revealed from the participants, the adoption of TQM components facilitated SP Ltd. to identify their key capabilities including leadership, culture, and teamwork; those were also found as the fundamental components of TQM. Participants mentioned that, prior to TQM initiative; the case organization did not pay attention to identify their core capabilities. In this respect participants mentioned that:

.....SP Ltd's use of various TQM practices helped them realize their existing capabilities those proved as key success factors.

Participants view revealed that the degree of support and commitment by the top management was critical for TQM success. As mentioned by Manager 6, the top managers exhibited their personal interest and involvement which led significant motivations among employees to work for quality. As mentioned by Quality In-Charge, the top management incorporated continuous training for the employees those were particularly involved in water treatment and syrup preparation because it was important for SP Ltd. to achieve high quality drinks with consistent test profile. It is found that the improved syrup with better and consistent test significantly increased customers' satisfaction. According to Manager 9, the refined products in different size of bottles with extra dietary ingredients created a good response from customer. The increased customer satisfaction also led demand for SP Ltd's products.

Moreover, Manager 3 expressed that the dynamic culture instituted by the top management had huge impact on quality of work and cost of product. It is found that SP Ltd's new quality oriented culture played a crucial role in quality improvement process. A strong culture is characteristically a valuable capability for any organization and a strong source of competitive advantage. It was believed by the participants, the culture with continuous learning, quality orientation, regular training facilitated the case organization with more efficiency which in turn led them to produce better product than before.

However, the SP Ltd highly emphasized the role of team in the process of TQM adoption as well as in achieving superior return. It is always very difficult to develop teams with strong bonding and a clear vision which was found in the case organization. In this regard, the organization was very successful in developing multiple types of teams with special orientation toward quality improvement. In this respect, Manager 5 expressed that the case organization developed teams including quality control team, quality assurance team, process improvement team, and cross-department teams those

played crucial role in organizations position. It was revealed from the participants that the ‘process improvement team’ brought a significant change in the design and production efficiency, thereby to enhance the satisfaction of the customers. Moreover, team involvement facilitated the organization in monitoring suppliers’ quality as well. A dedicated group of employees including the member from top management use to track suppliers activities regularly. In line with that, manager 7, mentioned that:

prior to TQM adoption there was very limited monitoring of suppliers quality... But through instituting team, now we have better control on suppliers quality... I believe that, efficient team played a strong role in identifying suppliers’ quality problem.

However, participants believe that the adoption of TQM had significant impact on company’s success including reduced cost, increased product quality as well as the enhanced customer satisfaction. He mentioned that while SP Ltd. was in a little trouble with customer dissatisfaction with their product, the TQM brought substantial changes in customer opinion regarding SP Ltd’ product. Moreover, the focus on reducing costs through improvement in production process resulted in improved product quality which in turn facilitated superior return. Table 3 shows the entire picture of SP’s TQM adoption to performance improvement (see Figure 1).

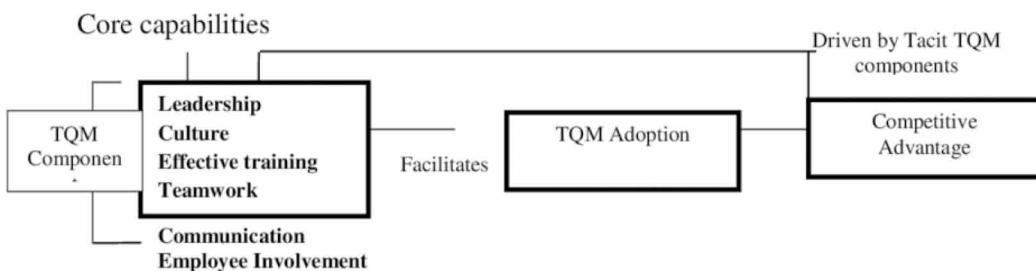
DISCUSSION

The purpose of this study was to identify the reasons for adopting TQM and how the case organization transformed into a TQM enabled organization. Moreover, the study focused on the TQM components that can create competitive advantage. The study contributes to two strands of literature, QM studies within the management literature, and the literature on developing economies. It provides practical evidence on why and how organization adopt QM practices in particular TQM. The findings revealed

Table 3. TQM adoption to performance improvement

| Changes Suggested and TQM Components | Adoption of Core TQM Practices | Observed Improvement | Led To |
|--|--|--|-----------------------|
| 1. Appointing a consultant 2. Need assessment 3. Developing a formal communication flow 4. Developing a learning culture 5. Identifying customer need 6. Developing a strong leadership base 7. Emphasizing Teamwork | 1. Managing suppliers quality 2. Formal system of managing quality data 3. System of Process management /Statistical Tools | 1. Improved quality of ingredients 2. Increased customer satisfaction 3. Lower cost 4. Improved taste | Competitive Advantage |

Figure 1. The framework used by SP Ltd. in the adoption of TQM



that the case organization was inclined to adopt TQM in order to face the crisis that occurred due to the increased demand of customers for quality and better taste of products. However, the price pressures were also found as another compelling reason for adopting such approach. It was essential to undertake quality initiatives for continuously improving the quality; and to rebuild customers trust and satisfaction. Hence, the study reveals that the adoption of TQM was a direct and immediate consequence of customer dissatisfaction and high competition. Findings indicate that it is important to assess the need before undertaking any new change initiatives in particular TQM which requires huge changes and commitment from various levels of the organization. Results show that the case organization took various steps including appointment of a consultant, created a culture of continuous improvement, developed a mechanism of communicating information; involved top management along with the employees in the improvement process, and emphasized on team building before and during adoption of TQM. Therefore, it indicates that the adoption of TQM requires various changes which need to undertake sequentially.

This study identified the TQM components that facilitated the case organization with high product quality, and better taste, thereby increase in customer satisfaction. Using the resource based theory of competitive advantage; the findings reveal that organizations must build their own capabilities which would difficult for competitors to imitate. It was found that some tacit capabilities including top management leadership, team work, and culture were critical to the organization's competitive advantage. However, results reveal that prior to the adoption of TQM the case organization was not realized their core capabilities. Findings imply that if organizations adopt TQM, they would be able to find out their capabilities because some of the TQM components reside in the core capabilities of the organization. However, it is reveal that the TQM components (the key capabilities of SP Ltd.) including leadership, culture, effective training and team work played the critical role in adopting other core TQM practices including supplier quality management, quality data management, and process management which in turn facilitated SP with cost reduction, improvement of ingredients quality improvement of taste and increase of customer satisfaction.

The findings have a number of implications for managers of beverage organizations. The changes brought in the SP Ltd. serve to make managers of other organization aware of the need to adopt TQM in order to improve the quality of the products and thereby to achieve competitive advantage. Moreover, the findings assist similar organizations in the same industry and also other developing countries to learn and build the confidence and belief that the paradigm of TQM is achievable and rewarding.

The case study was conducted in one organization using relevant document analysis and interview data collected from twelve participants. Future study may use the findings for other research areas and use a broader range of data.

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APPENDIX

Interview Guide

1. Can you please describe your organization's current quality management practices? Are you using TQM?
2. What is the reason for introducing TQM?
3. How was your organization introduced TQM?
4. What factors caused changes?
5. What difficulties were encountered?
6. Would you say these changes were successful? Why? Why not?
7. What processes were used to inform and familiarize the changes in quality management practices amongst the employees of your organization?
8. What factors would you say have had the major influence on the employees of your organization?
9. What impact have TQM components had on your organization's overall performance?
10. What is the key to the success of TQM within your organization? What factors are important?

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