

**Conference Name:** Australian Centre for Entrepreneurship Research Exchange  
Conference 2013

**Conference Location:** Queensland University of Technology, Gardens Point

**Conference Date:** 6 – 8 February, 2013

**ISBN:** 978-1-921897-55-9

**Editor:** Per Davidsson

**Paper Title:** The Development of a Multi Variant Model for Market Intelligence Data  
Gathering for Australian Micro Businesses and SMEs

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# **The Development of a Multi Variant Model for Market Intelligence Data Gathering for Australian Micro Businesses and SMEs - A First Step in Unravelling the Paradox of Big Picture Thinking by Small Market Players**

## **Abstract**

Micro businesses and SMEs have typically been encouraged to develop and implement “professional” business processes that will enable them to understand their business environment. The driver of this trend has typically come from a growth in the use of external “expert” sources (i.e. consultants and sponsored agents) who are not always fully associated with the business. This growth in external intervention has typically triggered an evolution in contemporary thinking and literature, that would lead us to believe that micro businesses and SMEs operate in a similar way, and with a similar structure, as larger organisations.

This paper focuses on some of the findings from a 2012 funded Australian government research project undertaken on market intelligence gathering techniques by micro businesses and SMEs located within Australia. The paper also discusses the ‘rock and hard’ place a micro businesses and SME finds itself between when attempting to generate robust market intelligence in a rapid, economic and valuable manner. Furthermore, this paper provides insight into the choices available for market intelligence collection for Australian micro businesses and SMEs and also offers a suggestion of a best fit framework for the collection of data by illustrating a novel multi-variant model.

## **1.0 Introduction**

To remain competitive, micro businesses and SMEs (MB/SME) are required to collect, analyse and act on market intelligence data as conscientiously as larger organisations. The growth of the Web 2.0 platform and the “continually connected” mode of current business practices, whilst promising to assist data collection, does not differentiate between large and small enterprises for the volume flow of available data. MB/SMEs are struggling to stay abreast of the developing technology and customers requirements that they stay relevant and leaders in their market, while at the same time manage the sources and flow of market intelligence. This has lead to an overload or overwhelm on the resources of the MB/SME.

Based on recent research, this paper discusses the change in expectation of market intelligence data gathering and outlines a theoretical model that can enable the MB/SME to make decisions on appropriate data collection processes and not risk customer service quality or connectedness.

## **2.0 Background**

Recent research has indicated that contemporary thinking, regarding the operating structure of a MB/SME, is typically inappropriate and often damaging to the MB/SME as too much attention can be diverted away from value customer interaction that is happening at a scale that the smaller business can manage. The practice of ‘big picture thinking by small market players’, has often developed a nebulous picture of the actual market the MB/SME operates in, and as such, has created a gap between the MB/SME and their real customer. This is because the MB/SME market intelligence is now often overpowered or diluted by copious misinformation from a wide range of new resources.

Research conducted by Bose (2008) and expanded upon by Xinping (2011) indicated that a further operational burden has been placed on the MB/SME with the introduction of the Web 2.0 platform (i.e. social media). The Web 2.0 platform has enabled an opportunity for the MB/SME to collect more data, from more sources and at a greater volume, however, it often overloads the MB/SME with too much information, typically in formats that are difficult to manage within the organisations business systems.

In the case of the MB/SME, a paradox exists, that in many cases electronic media has, instead of easing the workload, in fact increased the workload and decreased the opportunity for customer interaction (i.e. the opposite of the intent and common wisdom associated with IT and Web 2.0). Furthermore, once value and knowledge rich MB/SMEs are now often forced to follow a price driven business model because technology has made price comparison by the customer simple. However, the volume compensator for a price sensitive strategy available to larger organisations does not exist for typically resource poor MB/SMEs, and as such, their ability to sustain or grow their position is eroded.

There is no suggestion that MB/SMEs should return to a pre-modernist paper driven management system, however, there is evidence to suggest that the cumulative insatiable desire to ‘connect to the max’ has increased workload and risk (and perhaps reduced a sense of worth from the customer) within many Australian MB/SMEs.

Whilst providing an opportunity for many businesses to access a potentially wider market, the Web 2.0 platform (i.e. social media) also requires dedicated time to feed its continually connected mode. Typically, MB/SMEs have not been provided with enough information on how to judge whether the data from online sources should replace, work alongside, or be ignored in a comparison with traditional data collection modes for their business.

### **3.0 Literature Review**

The first stage of the original research project undertook a literature review on the meaning of market intelligence and how market intelligence was collected.

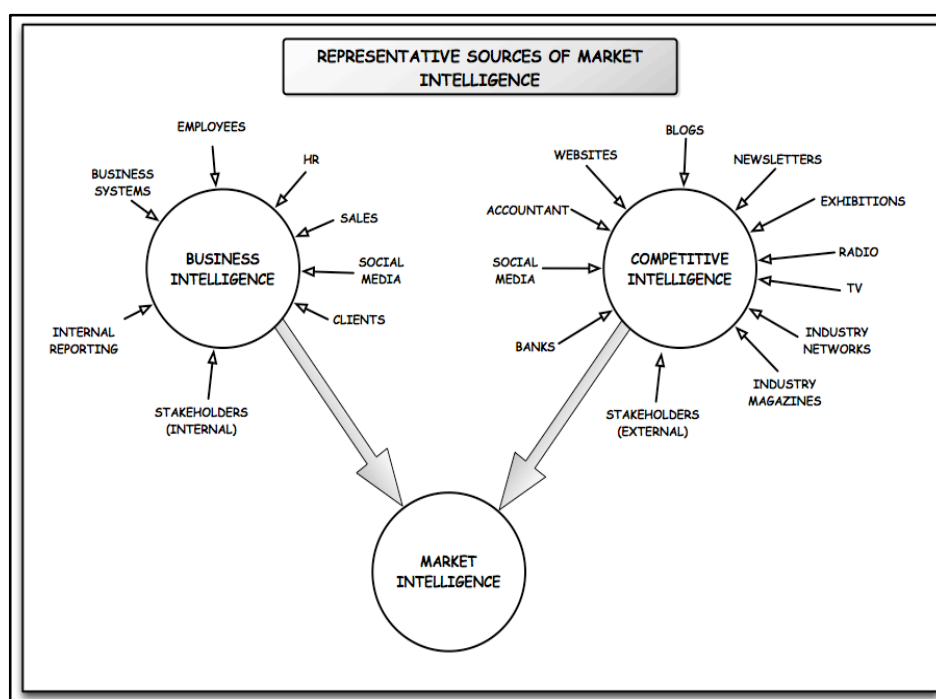
Market intelligence is defined in the literature as the holistic collection of internal and external business environmental data, by a business, that is to be used to make decisions on the viability of the current business market (Franco et al 2011).

The literature provided discussion on the sources of the data for market intelligence for a MB/SME. Market intelligence is collected from internal and external sources to enable a holistic view of the business health and potential growth. For example, internal sources of information are described as business intelligence and include aspects such as internal sales and accounting reports, staff reports and human resources. This information is collected informally through staff, client and stakeholder conversations as well as formally through business reports and staff meetings. Typically, external intelligence on the business is called competitive intelligence and is also collected formally and informally and the data is derived from sources such as financial services, industry magazines and industry networks (Chan & Das 2010 and Chen 2010 and Bose 2008).

Both sources of information (internal and external) combine to provide a holistic view of the MB/SME, this is called market intelligence. Market intelligence is used to create knowledge within the MB/SME. It is claimed that knowledge has now overtaken traditional business

staples such as land, labour and capital in importance to a business (Chen Kim and Mauborgne 1998, 1999).

The processes of creation, storage and retrieval, transfer and application of knowledge within a business enables the business to identify opportunities, stay competitive and become sustainable (Alavi & Leidner 2001 and Hou & Ying-Tsung 2010). However, the literature shows that MB/SMEs have been found to be struggling with the continuing development of new technology for the collection of market intelligence, such as social media on the Web 2.0 platform, and along with this, the new forms of data and the formats that this data is available in. The collection and management of this market intelligence has become complex, with the MB/SME required to manage internal business communication and customer relationship management through electronic and non-electronic media and ensure that there is a comprehensive understanding of the macro (or external) business market, including trends and threats (Bose 2008 and Sivaramakrishnan et.al. 2010). Figure 1 illustrates the sources of information for market intelligence gathering.



**Figure 1. Representative Sources of Market Intelligence**

Typically, the current literature suggests that traditional forms of data collection may not provide the MB/SME with a holistic outline of business activities and therefore the ability to build a competitive edge (Chen 2010 and Hansen 2002 and Greenberg 2010). Traditional forms of data may also not provide the MB/SME with timely or 'of the moment' information due to time lags in receiving relevant market information or the normal practice of historical reporting. Furthermore, Generation Y and Z<sup>1</sup> are entering the consumer market place and workforce and there is an expectation from this demographic that MB/SMEs provide them with current communication tools and services that, in a lot of cases, are still not embedded in the traditional MB/SME environment (Fournier & Avery 2011 and Greenberg 2008).

<sup>1</sup> It is typically agreed that Generation Y encompasses people born between the mid to late 1970's to mid 1990's and that Generation Z is from the mid 1990's to mid 2000's, however these dates vary with author and authority (socialmarketing.org)

#### **4.0 Methodology of the Face to Face Research**

The research undertaken into Australian MB/SMEs was conducted using a mixed method approach consisting of a literature review of key themes, face to face interviews and focus groups. This approach was taken to gain a better understanding of current dynamics of the MB/SME and current literature.

The face to face interviews and focus group components of the research were conducted under quasi experimental conditions and performed onsite in an environment that was conducive to producing highly contextual outcomes. The results from the face to face research were benchmarked against the results of a primary literature research on contemporary practices commonly accepted within business.

The face-to-face interviews undertaken for this research were convened with Australian MB/SME industry leaders and business owners using an Appreciative Inquiry approach (Kinni, 2003). This methodology was considered the best approach for gathering an in-depth understanding of the business owners' formal or informal processes.

Whereas, there is no suggestion that the information is statistically relevant, it does however, show some interesting trends.

#### **4.1 Demographics of the Face to Face Research Groups**

The study participants were sourced from a range of industries including engineering, business development, manufacturing, hospitality and retail. The focus groups were participating in a range of industry workshops and were not intimately known to each other. Participation in the research was voluntary and this sample was considered a random selection for this study.

The business longevity of the MB/SMEs used for the whole study consisted of fifty percent of the respondents in business for over 15 years, a further third of the respondents in business between 5 to 14 years and the balance had been in business for less than 5 years.

#### **5.0 Findings Derived from the Research**

Over the last decade MB/SMEs have been provided with a continual stream of seemingly better, and additional, ways to collect data and connect with their customers. However, there is typically little data that recognises the uniqueness of MB/SMEs operating protocols and the processes needed for these unique businesses to select the right mix of market intelligence collection for a specific business environment or culture. The literature, and common wisdom, has typically suggested that the MB/SME should undertake all the processes needed to collect data, regardless of size of the organisation or resources needed and this is often to the detriment of the MB/SME.

A number of findings were derived from the face to face interviews and focus groups. These findings included:

- The collection of market intelligence is directly related to a 'business crisis' (or trigger)

- The collection of market intelligence data is an embedded process within any MB/SME, however, it is not formally recognised as a business process by the MB/SME
- The available data and available collection processes is increasing at a rate that is overwhelming the MB/SME and this overload can potentially see the MB/SME collect irrelevant or wrong data, potentially risking errors in business decisions.

### **5.1 The Collection of Market Intelligence is Directly Related to a ‘Business Trauma’ (or trigger)**

When the participants of the study were asked why they collected market intelligence, it was established that they activated physical market intelligence collection due to a business crisis or trigger, making the collection reactive to a situation. This was supported by the research showing that business managers took action only when there is a need to respond to a crisis or a change in the market (i.e. a trigger). These crisis points can be internally generated such as staff changes or externally generated events such as a new competitor in the market or a recession. The research provided a list of business triggers that would initiate the collection of market intelligence for a MB/SME. These were:

- A reduction in sales turnover
- A new opportunity for the business
- A change in the customer demographic resulting in a change in demand
- Market driven changes to demand
- Recession
- Sale or change of management of the business
- New or exiting competitors
- Government or legislative changes

### **5.2 Embedded Processes Within the MB/SME Culture for Market Intelligence Collection**

The participants were initially asked if they collected market intelligence for use in business decisions within their own MB/SME. Initially the respondents were unfamiliar with the term ‘Market Intelligence’ and answered that they did not use this ‘business process’. The discussion was expanded and the process and definition of market intelligence was explained. The research revealed that MB/SMEs did use a number of methods for collecting market intelligence and these methods depended on the existing culture and skills within the business and often also depended on the personal preference of the data gatherer. The methods used by the MB/SME included:

- A culture of staff feedback to the business about events and opinions within the marketplace
- Attending and participating in business networks
- Using personal networks to provide opinion, feedback and potential new product/service ideas

- Internet search, including sales, information and social media sites to enable an understanding of customer needs/wants, competitor movements, and market trends
- Taking the time to look at the marketplace and understand the dynamics that are shaping it. This also included a personal reflection on where the business was positioned within the market
- Reading industry magazines and newsletters

An interesting outcome of point 5.1 and 5.2 was that they illustrated a paradox in thinking for MB/SME market intelligence collection. Whereas the MB/SME initially said they collected information as a result of a trigger, they actually collected the information as part of their normal course of business and culture. This finding suggests that MB/SME's place greater resources (time and effort) and importance (content) on market intelligence information only in a time of crisis.

### **5.3 Data and its Management is Overwhelming the MB/SME**

The research participants identified that the MB/SMEs understood that there was an abundance and seemingly never ending variety of data sources for collection and management. The participants also acknowledged that to understand their whole market, it was essential to collect both internal and external business market data. However, this typically provides a data collection, management, analysis and dissemination problem effectively adding to the work and stress load of the MB/SME.

There are a range of options for the MB/SME to collect data:

- Manually (talking, reading, networking)
- Technology (social media, industry reports, research)
- Formal networks (staff, industry bodies, government departments)
- Informal networks (friends, family, trends in the market)

The data comes in written, spoken, visual, electronic and experiential formats and can be collected by a single person or as a group within the MB/SME.

The ability to collect this data has been enhanced by the increasing use of the internet and devices such as smart phones, and with that, MB/SMEs are struggling with the ability to manage and analyse this data. The research showed that, although, the MB/SME feels they should be able to collect the data on their business environment (internal or external), the breadth and variety of the available formats along with the wide range of ways the data will connect with the MB/SME has left a feeling of uselessness, hopelessness and loss of control (i.e. "corporate depression"). This will impact on the ability of the MB/SME to participate competitively within the business environment.

Most MB/SMEs feel that, in order to 'stay relevant in business', they need to have a presence on the internet. Typically, when questioned on their technical presence the MB/SME said they either have a facebook/linkedin site; or they 'know they should have one'; they need a website; but they have lost control of their website; or they need it updated. The belief is that

a MB/SME must be a master of their technology world in addition to their traditional mastery of their business world, further adding to the feeling of overload or overwhelm.

Overall, the works suggests that the MB/SME is looking for permission to pick and choose the formats and collection paths for market intelligence collection and that this process should enable a smooth access to the data.

## **6.0 Framework and Model Resulting from the Research**

As a result of this work, a model for planning market intelligence gathering for MB/SMEs has been developed, and from it, a discussion is offered concerning how the right balance of market intelligence gathering can be obtained. Recommendations for overcoming the paradox of big picture thinking in a small market environment are also offered. This section includes:

- A framework to enable the planning, collection and identification of the right data
- A model outlining a process that can be applied to market intelligence collection by MB/SMEs

### **6.1 Frameworks**

Effective collection and understanding of market intelligence for a MB/SME involves the planning and embedding of frameworks to enable collection of the right data, a process to analyse the data into useful information, development of networks that can not only collect the data, but also build on the information to create knowledge.

Important elements that were found to be of most use in the market intelligence framework are:

- An understanding of what data the MB/SME requires
- A process that identifies high quality data from internal and external sources and enable bad or irrelevant data to be discarded
- The process is embedded into the culture of the MB/SME and is not treated as a silo process
- Provide technology and training to support the collection and analysis process
- Develop a culture of sound judgement and trust in the collection, analysis and decision making process
- Understand and leverage the strengths of individuals within the MB/SME
- Provide an environment that supports dynamic decision making processes and discussions
- Provide feedback on all processes



## 6.2 Model for Obtaining the Right Balance of Market Intelligence

### 6.2.1 Selecting the Right Data

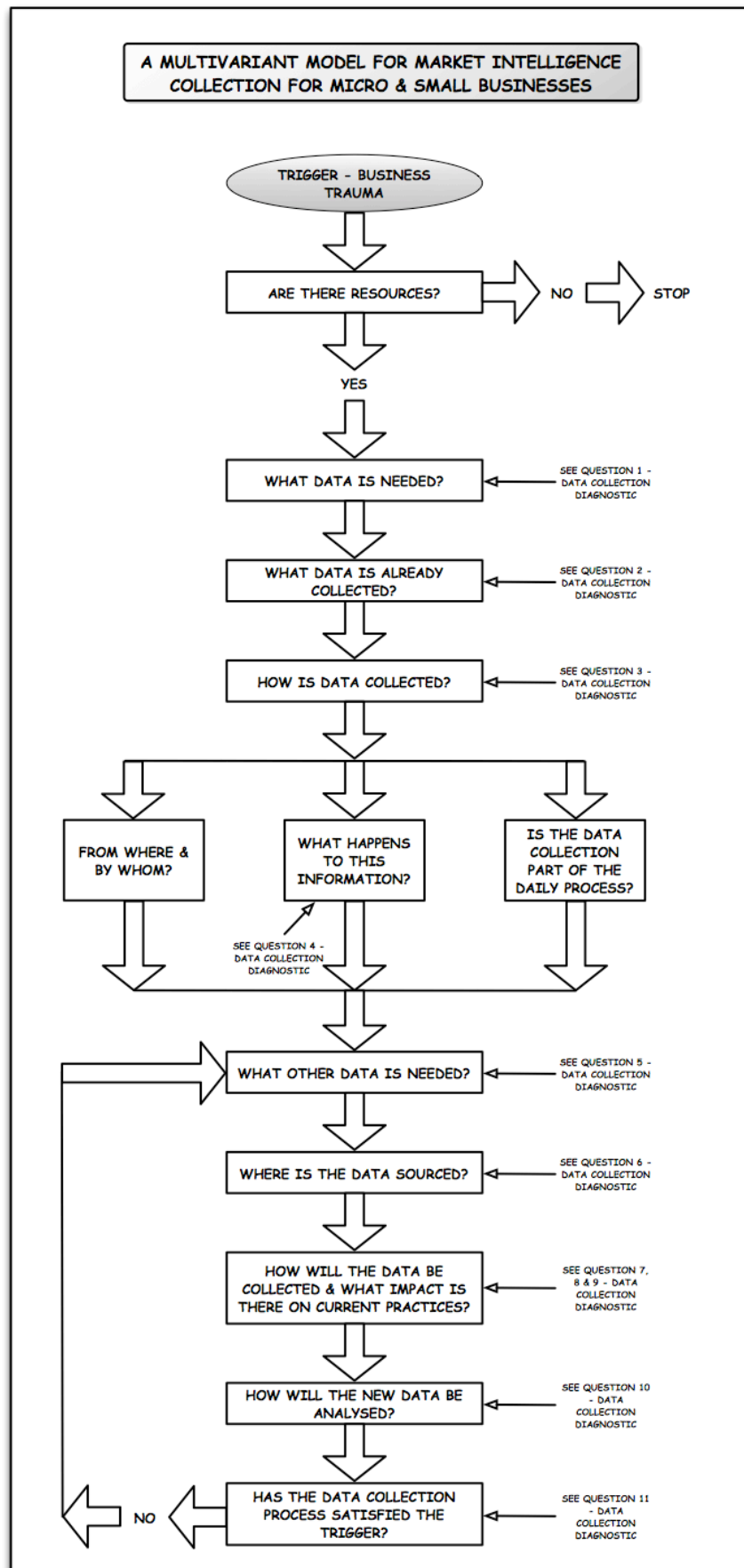
The variety, breadth and quantity of data is continually rising along with the development of new technology for collecting data. Pressure has been placed on MB/SME's to collect all data that is available to them with the 'promise' that this enables effective strategic decision making. The literature suggests that a single framework that assists the MB/SME to filter irrelevant data collection processes and data, and enable it to concentrate only on the relevant data should be utilised. A list of diagnostic questions has been determined to enable a data selection process. Figure 2 illustrates a series of 11 questions asked in the diagnostic tool.

Data Collection Diagnostic Questions	
1	What data does the SME need to understand the market? What strategic decisions need to be made for the SME?
2	What data does the SME already collect?
3	How is the current data collected, by whom and where is it sourced from?
4	What does the SME do with the data currently collected?
5	What other data is required that is not yet collected?
6	Where will the extra data come from? (e.g. face to face networking, industry sources, internet (website statistics or social media)?
7	How will the extra data be collected and how will this process fit with current practices?
8	Who will collect the additional data?
9	How will the extra data be analysed and will this fit with current practices?
10	How will the data be actioned and what benefit will be expected from the action?
11	How will all the data be reported back to the SME?

**Figure 2. Data Collection Diagnostic Questions**

In an attempt to clarify the process for market intelligence collection in a MB/SME, a theoretical model was developed that outlines the process that can be undertaken by an MB/SME for market intelligence collection. Figure 3 illustrates the theoretical model.

The research showed that a MB/SME collected data in response to a trigger or business trauma. This trigger often leads to an initial question, “Do we have the resources to address the trigger?”. If the answer was ‘no’, then the MB/SME would need to take steps towards a business closure, market change or wind-down. If the answer was ‘yes’ then the MB/SME would need to embark on a path to collect the data that was required in order to effectively make business decisions.



**Figure 3. A Multivariant model for Market Intelligence Collection for MB/SME**

The first stage of the data collection process is to look at the data that is already collected by the MB/SME, this data could be from internal business reports, staff meetings, feedback from customers etc. Next, an understanding of how the current data is collected, for example, where is the data sourced?, who collects the data?, and, what happens to the information obtained from the data?. Then determine if this information is part of a daily routine, to gauge the level of embeddedness of the data gathering process into the MB/SME business culture. If the current practices are problematic or difficult, it may be necessary to implement changes into the business processes. When it is established what data, by whom and how it is collected, a plan for collection of other market intelligence that is required should be established. This plan would require:

- What new data is required
- Where will it be collected
- Who will collect the data
- How to judge if the new data is relevant
- How will the data be analysed
- What is the impact on current workloads
- Does the data meet the needs of the MB/SME and address the business trigger?

By following a model for market intelligence collection, the MB/SME has the potential ability to plan the data that is required to address the trigger and avoid the possible overload of irrelevant information.

## **7.0 Conclusions**

The study showed that MB/SME often collect Market Intelligence data as a natural part of the daily business process, however, they collect additional, or what they deemed important, data in reaction to a business trauma or trigger. Typically the participants of the study did not recognise that they were in fact undertaking this process and were quite surprised at the relevance of the processes they used. The study also showed that the MB/SMEs were overwhelmed not only with the amount of data that was currently available to the business, but equally overwhelmed by the number of sources for this data including technology based processes. They voiced concern that technology was developing faster than they could grasp the developments and they were feeling pressured to learn new technologies, often at the cost of running their business. The MB/SMEs are looking for guidance in this area and would benefit from a model with culturally suitable options to guide them in times of crisis or growth.

## **8.0 Recommendations for Further Work**

The following recommendations have been derived from the work to date:

1. Develop an understanding why more importance is placed on the market intelligence in times of crisis.
2. Research the impact on supply network's general relationship to non-rational supply networks.

3. The application of a rules based system to the theoretical model to provide a level of automation.

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