

# The Indispensability of Information Technology in Marketing Intelligence System: A Conceptual Approach

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**Abstract**— This study was initiated with a view to understand the essentiality of IT in MI. The conceptual framework is developed for the understanding of MI in international context as well domestically. Marketing intelligence is “a continuing and interacting structure of people, equipment and procedures that, in combination, gather, sort, analyse and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation and control” Although many professionals do much of their own information gathering and analysis, there still needs to be a clear focal point of the Marketing Intelligence System responsibility. This may be a named individual or a small group of people who have the distinctive skills needed The system represents a decision support system for marketing activity. It consists of information technology – mainly based on internet system, marketing data and modelling capabilities that enable the system to provide predicted outcomes from different scenarios and marketing strategies, so answering "what if?" questions. An electronic collections of information obtained from data sources within the company.

**Key words:** Intelligence System, Indispensability

## I. INTRODUCTION

This study was initiated with a view to understand the essentiality of IT in MI. The conceptual framework is developed for the understanding of MI in international context as well domestically. The terms “marketing intelligence”, “market intelligence”, “market research”, “business intelligence” and “corporate intelligence” are, in general, used interchangeably in the literature (TALVINEN, J 1995). We are going to present the following concepts: Marketing Information System (MIS), Marketing Intelligence (MkI), Business Intelligence (BI), Competitive Intelligence (CI), and Market Intelligence (MARKINT). Marketing intelligence is “a continuing and interacting structure of people, equipment and procedures that, in combination, gather, sort, analyse and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation and control” (Tan and Ahmed (1999:298)). Wee (2001) cautions that MI differs from market research, as the emphasis of MI is on the regular and systematic collection of data On the other hand, typical market research projects examine specific problems, and are non-routine in nature.

The system must not result in mountains of paper - it is necessary to make a synthesis of information. The output format of information is less relevant and depends on the importance the management gives to a marketing intelligent system .What managers can expect from a marketing intelligence system is to help them get current

decisions, to follow the development of their goals and to make you aware of competition and market changes. A Marketing Intelligent System (MkIS) cannot replace the manager’s intelligence and creativity. Huster (23) sees MIS as “the ability to fully understand, analyze, and assess the internal and external environment associated with customers, competitors, markets, industry and use the acquired knowledge for long and short term strategic planning”. This tends to reinforce the view that the intelligence obtained is then used to aid marketing-related decisions. With many professionals having external information delivered to their desktops, from online services and increasingly from the Internet, it is easy to believe that users have all the information and data they need on tap. However, this is raw information and it needs to be transformed into intelligence (KOTLER 2000). Before that, however, this information must be classified, stored and made accessible - applying good practice principles of information resources management (BAHLOUL, M. Y 2011).

## II. MARKETING INTELLIGENCE: AN OVERVIEW

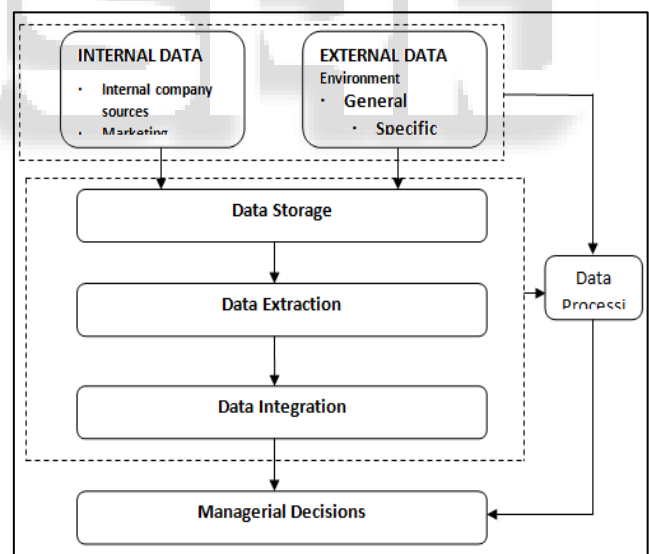


Fig. 1: Conceptual Framework of Marketing Intelligence system

Marketing intelligence is “a continuing and interacting structure of people, equipment and procedures that, in combination, gather, sort, analyse and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation and control” (Tan and Ahmed (1999:298)). Wee (2001) cautions that MI differs from market research, as the emphasis of MI is on the regular and systematic collection of data On the other hand, typical market research projects examine specific problems, and are non-routine in nature.

This framework emphasises the important role of information technology (IT) in the MI process.

### III. DATA COLLECTION

The first step in the MI process entails the gathering of internal and external data. A continuous flow of useful information is the lifeblood of a good MI system, including information about new technologies, markets, customers, the economy, the regulatory environment and so on (Wee, 2001)<sup>19</sup>. Huster (2005) suggests that firms need information about those internal and external environments associated with customers, competitors, markets and industry.

External data, according to Venter and Tustin (2009), is typically obtained by processes that generate mostly unstructured information about macro-environmental forces, competitors and customers from primary and secondary sources. Primary sources of information about the external environment include customers, manufacturers, dealers, distributors, research, the sales force and other staff members, physical evidence, trade associations, exhibitions, conferences and journalists (Venter & Tustin, 2009; Wee, 2001).

Secondary sources include sources of information in the public domain, including annual reports, government publications and information posted on the internet. The internet, according to Wee (2001), has the greatest potential for sourcing secondary sources of information. This potential is situated in the massive volume and easy availability of databases and information. Internal data, on the other hand, can also produce a wealth of knowledge and is found in company databases, file servers and on employees' desktops (Wee, 2001). Examples of source systems include legacy systems, enterprise resource planning systems, customer relationship management systems, online transaction processing and online click stream data (Venter & Tustin, 2009).

#### A. Data Storage

The second step in the process is to store data and information obtained internally and externally in a format from which it can be easily extracted. Supporting technology to store data includes intranets, data warehouses or data marts (Venter & Tustin, 2009).

#### B. Data Extraction

In order to extract data, the third step entails various management information and analysis tools. Online analytical processing, data mining, executive information systems, geographical information systems and data query software can be used (Louw & Venter, 2010; Venter & Tustin, 2009; Wee, 2001).

#### C. Data Integration

Although some companies generate considerable MI and invest significantly in supporting technology, the success of MI initiatives is ultimately determined by the dissemination and integration of intelligence to support decision-making. In the fourth step, data integration takes place. Data integration and access software are frequently cited as the greatest and most expensive challenge that organizations face (Bernstein & Haas, 2008).

There is a wide range of technological tools to support marketing decision-making (see, for example, Daniel, Wilson & McDonald (2003) for a comprehensive review of IT tools and their use in marketing). However, Louw and Venter (2010) caution that technology alone is not always sufficient to support strategic decision-making, and that meaningful integration for purposes of strategic decision-making requires a combination of people, processes and technology. Scenario planning is an example of a process that could use people (for example, scenario planning teams, consultants and participating managers) and technology (for example, simulation technology) to integrate MI from various disparate sources into shared meaning and a basis for strategic decision making.

### IV. MARKETING INTELLIGENCE QUALITY

While the previous section considered the content and tools (processes and technologies) associated with MI, it does not address the important issue of MI quality. Conradie and Kruger (2006) suggest that there is a distinction between the inherent quality of the data, such as accuracy and reliability, and its pragmatic quality, such as timeliness and format. These make it more useful to end-users.

#### A. Marketing Intelligence (MI)

MI is referred to "as the information relevant to a company's markets, gathered and analyzed specifically for the purpose of accurate and confident decision-making in determining market opportunity, market penetration strategy, and market development metrics. Marketing Intelligence is necessary when entering a foreign market. Marketing Intelligence determines the intelligence needed, collects it by searching the environment and delivers it to those marketing managers who need it." (6), (7), (8) Marketing intelligence is "systematic collection and analysis of publicly available information about competitors and developments in the marketing environment" (KOTLER 1988), (KOTLER 2000), (KOTLER 2010).

Marketing Intelligence (MI) is not the same as Market Intelligence (MARKINT). Hence, Marketing Intelligence professionals often research information and use those tools that take data from disparate data sources like web analytics, Business Intelligence (BI), call centre and sales data, which often arrive in separate reports. It is the role of Marketing Intelligence (MI) to put this data into a single environment (POPA, G 2012.), (6), (7). For these reasons, it is often mistakenly perceived to be (or be part of) Business Intelligence. It is also sometimes mistakenly perceived to be (or be part of) Competitive Intelligence because organizationally, Marketing Intelligence can be the name of the department that performs both the market intelligence and the competitor analysis roles (6),(7), (8), (13), ( IGORUT, C., BALACEANU A.V. 2007.), (WRIGHT CALOF, Jonathan L 2006).

#### B. Market Intelligence (MARKINT)

Market intelligence is another intelligence discipline that is often confused with the other intelligence disciplines. As surprising as it may sound, it is most often misperceived to be (or be part of) Business Intelligence (7), (9). On Wikipedia (8), Market Intelligence is referred to as a "branch of Market research, involving collation and analysis

of the available and relevant information and data on specific markets. Market intelligence typically involves the collation of data from various sources such as company accounts, official statistics, data from trade bodies, interviews with business contacts, and research on consumer attitudes. Whereas, Market research is often considered a consumer-orientated discipline, Market intelligence tends to offer a broader view of markets including business and sector data - such as market-sizing, - segmentation, and - share data.”

#### C. Business Intelligence (BI)

Although Business intelligence (BI) is widely used by companies these days, its terms and exact definition is often confused and mixed with other types of intelligence (marketing intelligence, market intelligence, and competitive intelligence) an organization looks to gather. It is therefore important for us to “put things in order” and help in order to better distinguish between these types of intelligence (7), (8), (9). CIO.com (12) defines BI as “...an umbrella term that refers to a variety of software applications used to analyze an organization’s raw data. BI as a discipline is made up of several related activities, including data mining, online analytical processing, querying and reporting. Companies use BI to improve decision making, cut costs and identify new business opportunities. BI is more than just corporate reporting and more than a set of tools to coax data out of enterprise systems. CIOs use BI to identify inefficient business processes that are ripe for re-engineering.”

#### D. Competitive Intelligence (CI)

Competitive Intelligence - the action of defining, gathering, analyzing, and distributing information about products, customers, competitors and any aspect of the environment needed to support executives and managers in making strategic decisions for an organization (7), (8), (9), (WRIGHT, Sheila, CALOF, Jonathan L 2006), (WRIGHT, S., PICKTON, D.W., CALLOW, J., 2002).

We like to look at it much more simply: “to stay ahead of the competition, you need as much relevant data as possible to make good decisions. That’s where clear competitive intelligence comes in. Being able to easily monitor any information or webpage allows businesses to focus on what they do best - running their business” (POPA, G., 2012.), (WRIGHT, S., PICKTON, D.W., CALLOW, J., 2002).

#### E. Competitive Intelligence Software (CI)

CI – is defined as the “experience a better way to monitor Internet data so you can spend more time analyzing and forming conclusions about your market and competition.” (POPA, G 2012.), (WRIGHT, Sheila, CALOF, Jonathan L 2006) By using clear CI flexible and competitive monitoring technology, you can automatically track almost any web page on the Internet, providing you with complete Competitive and Market Intelligence for multiple functional or product areas within each organization. And since clear CI was designed to detect, gather and deliver timely information to you, you can receive change alerts and updates via email or online using software application (SaaS) in the cloud (cloud computing) (WRIGHT, Sheila,

CALOF, Jonathan L., 2006), (WRIGHT, S., PICKTON, D.W., CALLOW, J 2002).

#### F. Cloud Computing

Cloud computing is a process where a task is solved by using a wide variety of technologies, including computers, networks, servers, and the Internet. Cloud computing is very similar to grid computing; however, usually, it is differentiated from grid computing due to its use of Internet tools (9), (QIU, T 2008).

#### G. Marketing Intelligence Systems (MKIS)

A marketing intelligence system is a set of procedures and sources used by managers to obtain their everyday information about pertinent developments in the environment in which they operate. “The marketing intelligence system supplies data about the market” (KOTLER 2000).

Another definition of marketing intelligence system is that “it is a system for capturing the necessary information for business marketing decision making” (SKYRME 2012). The fundamental purpose of marketing intelligence is to help marketing managers make decisions they face each day, in their various areas of responsibility.

A marketing intelligence system is a set of procedures and data sources used by marketing managers to sift information from the environment, information that they can use in their decision making. (WRIGHT, Sheila, CALOF, Jonathan L 2006).

#### H. Intelligence Using Open Source Data

More often, companies began using open source data in developing marketing intelligence. The term is defined as “the scanning, finding, gathering, exploitation, validation, analysis, and sharing with intelligence-seeking clients of publicly available print and digital/electronic data from unclassified, non-secret, and “grey literature” sources”( WRIGHT, S., PICKTON, D.W., CALLOW, J 2002).

Open source intelligence “is the most frequently used form intelligence gathering in business enterprises, desirable because it is easy, inexpensive and produces abundant raw material for further processing”( WRIGHT, Sheila, CALOF, Jonathan L 2006), (WRIGHT, S., PICKTON, D.W., CALLOW, J 2002). realizing that much of the information they acquired has little relevance or value toward meeting their needs. Companies typically spend far more time gathering information than they processing, analyzing and exploiting it. This study shows that practitioners would like to reverse this equation, and spend more time processing, analyzing and exploiting data as opposed to just gathering it.

## V. CONCLUSION

Although many professionals do much of their own information gathering and analysis, there still needs to be a clear focal point of the Marketing Intelligence System responsibility. This may be a named individual or a small group of people who have the distinctive skills needed The system represents a decision support system for marketing activity. It consists of information technology mainly based on internet system, marketing data and modelling capabilities that enable the system to provide predicted

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