

KABARAK UNIVERSITY

6TH ANNUAL INTERNATIONAL RESEARCH CONFERENCE

Information systems (IS) for competitive intelligence (CI) in small and medium enterprises.

WILKISTER ATIENO DINDA

20/07/2016

Introduction / Background

- ▶ Information systems have emerged to be a powerful tool for driving competitive advantage for firms
- ▶ Prior research has shown that very few SMEs use the analytical power of IS to drive their performance especially in developing economies
- ▶ This has been blamed on the overall cost of adopting and maintaining information systems
- ▶ The essence of CI is to use your competitors data to drive your market strategy

Statement of the problem

- . There is a low rate of acquiring information systems in SMEs especially in firms in developing economies.
- . Cost of acquisition and the challenge that technology goes obsolete very fast have been considered the biggest obstacles

Study objectives

- . To evaluate the level of adoption of data analytics tools by SMEs
- . To evaluate tools in the market that SME's can use to drive their analytical capability

Brief literature review

- . Information systems have become critical tools for firms aiming to compete effectively in the market(Fayyad, 2012).
- . Vast amounts of data are gathered by organizational information systems daily(Gartner, 2015).
- . This data becomes useless (dark data) unless it is effectively mined to identify hidden meanings (Springer, 2007), (Comvault, 2015)

Brief literature review

- . Competitive intelligence (CI) has for long been considered a strong competitive weapon (Gartner, 2014)
- . CI should be differentiated from espionage though a thin line exists between
- . The ability to be proactive and not reactive in the market is a major competitive ability of any firm aiming to effectively compete with its competitors (OECD, 2009)

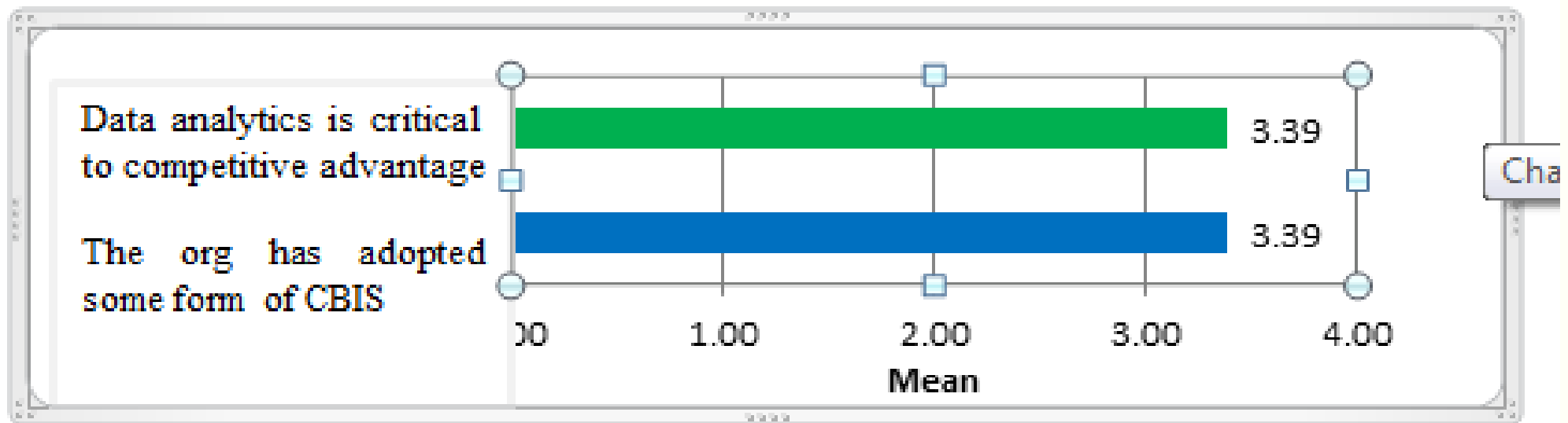
Methodology

- . Primary data on the extent of adoption of data analytics tools for CI was collected from 71 SMEs registered under the ministry of industrialization
- . Descriptive and inferential statistics was used to analyse the data and to draw conclusions
- . Secondary data sources was analysed to provide existing tools in the market that SMEs can apply to drive up their analytical capabilities

Findings / Results

. 76% of the respondents had no knowledge of data analytics; 58% strongly agreed that they considered understanding their competitors behaviour critical to their business

Findings / Results



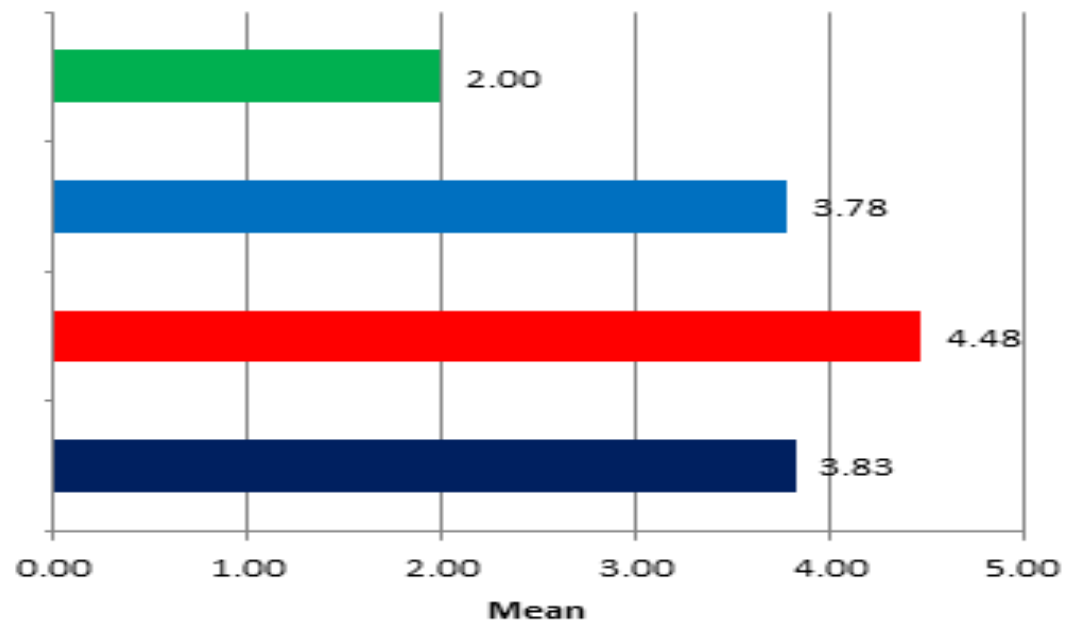
Findings / Results

The organization uses some form of data analytics to understand its competitors

The level of competition has tremendously increased of late

Cost of IS has limited the firm's ability to acquire data analytics tools

The firm has large data volumes stored within its systems



Findings / Results

- . CI tools available freely in the market
- . Ghostery : empowers consumers track which companies are tracking their browser
- . Similarweb : aggregates data from multiple sources to estimate traffic and geography
- . Quantcast : web traffic volume, demographics, traffic trends and unique visitors
- . Others include: moat, hitwise,

Conclusions

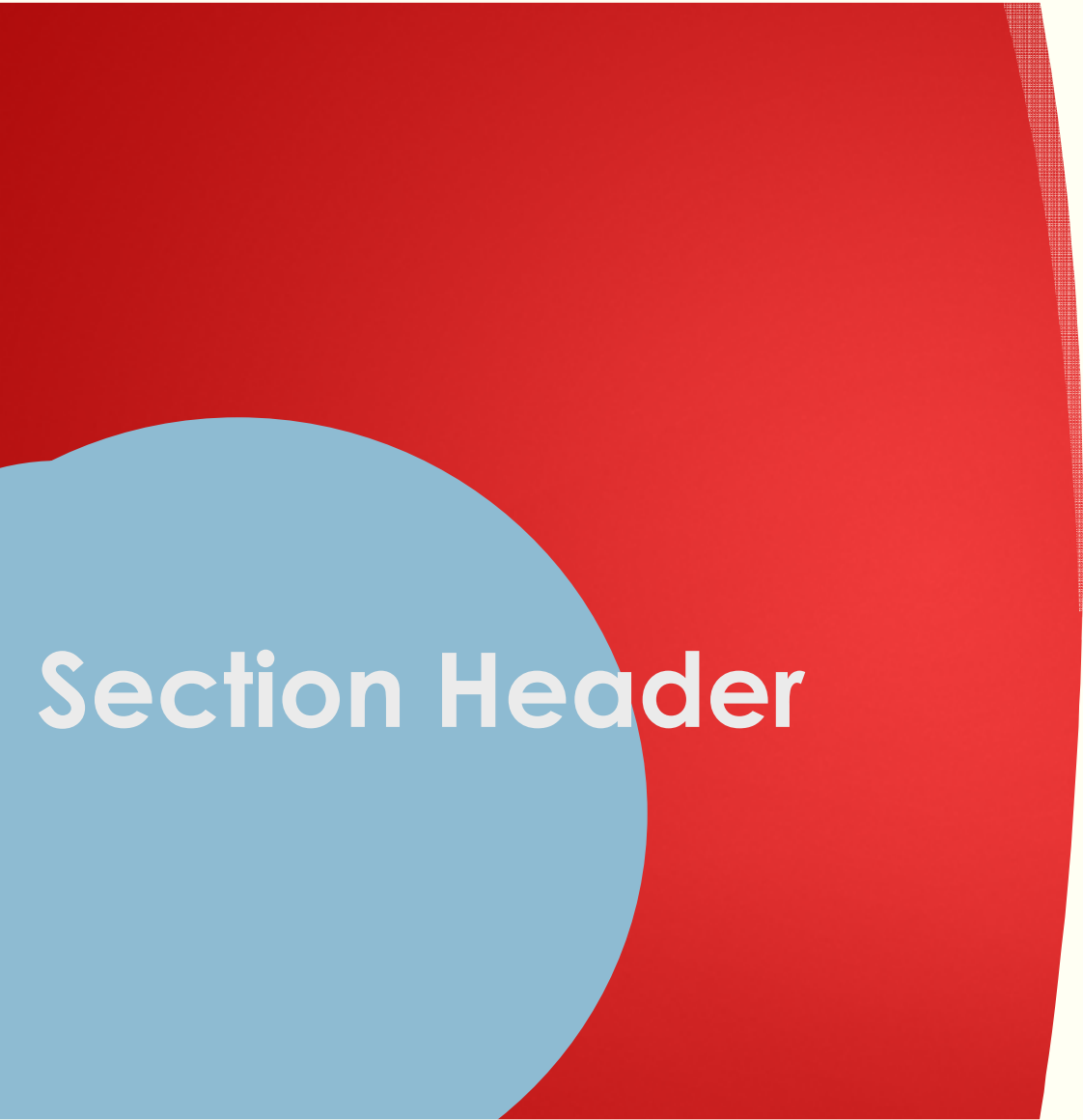
- . The level of data analytics tools adoption by SMEs is very low
- . Cost, complexity of technology, lack of awareness on CI tools blamed
- . Cloud computing solutions offer a cheaper option for SMEs to carry out data analytics
- . Open source software tools freely available

Recommendations

- . IT companies need to do more to elevate the level of knowledge of IT products to SMEs
- . The adoption of Open source tools and cloud computing facilities need to be encouraged for SME usage. These tools are relatively cheaper

Areas for further study

- . Integration of legacy systems with data analytical capability to drive a data analytics and competitive intelligence



Section Header