Information needs, information seeking behavior and use of ICT in knowledge-based South African growth SMMEs

Dr Shana Ponelis
15th Annual IS Conference: “Informetrics and Information Seeking Research in Africa”
Peermont Metcourt Hotel at Umfolozi, Empangeni
September 3-5, 2014
And where’s Milwaukee exactly?
University of Wisconsin-Milwaukee (UWM)
The UNIZULU – UWM connection

On July 6, 2010 an agreement for educational and scientific cooperation between UWM and UNIZULU was signed.

The UNIZULU – UWM connection

According to Alderman Joe Davis, Sr the agreement “will allow students and faculty members from UWM to visit, study, and teach at the University of Zululand, and vice versa,” he said. “The academic sharing of our ideas and the resources of the two institutions will no doubt enrich both Milwaukee and South Africa.”

Since the signing of the agreement UWM SOIS and the DIS at UNIZULU have undertaken several activities:

– Prof Dennis Ocholla and Lyudmilla Ocholla visited UWM Golda Meir Libraries (2011)
– Prof Daisy Jacobs was a Visiting Scholar at SOIS (April-June 2013)
– 14th Annual DIS conference – Britz, Du Plessis, Ponelis (September 2013)
– 15th Annual DIS conference – Wolfram, Ponelis (September 2014)

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Outline

• Key concepts
• Background and motivation for the study
• Theoretical framework
• Objectives of the study
• Methodology
• Results
• Conclusion and recommendations
• Comments? Questions?
Key concepts

- **SMMEs**
  - Small, medium and micro-enterprises
  
  - Ntsika Enterprise Promotion Agency (2001), established by the South African Department of Trade and Industry (dti, 1995) to provide wholesale non-financial support services for development of micro, small and medium enterprises, uses the following thresholds:

  - Businesses with less than ZAR 50,000 (approx. US$5,000) in turnover are considered micro-enterprises.
  
  - Small enterprises are enterprises with between ZAR 50,000 and ZAR 5 million (approx. US$ 500K) turnover.
  
  - Enterprises with turnover between ZAR 5 and 50 million (approx. US$ 5m) are medium-sized enterprises.
Key concepts

- **SMMEs (continued):**
    - stipulates varying definitions for different industry sectors in terms of total annual turnover (in Rm), and total gross asset value excluding fixed property
    - total full-time equivalent of paid employees, however, remains constant with:
      - Micro-enterprises have 5 or fewer employees;
      - Very small enterprises have between 5 to 20 staff;
      - Small enterprises have from 21 up to 50 employees; and
      - Medium enterprises have 51 to 200 employees (except agriculture with a limit of 100 employees)
Key concepts

• **SMMEs (continued):**
  
  – Different forms (sole proprietorship, partnership, etc.)
  
  – Defined by number of employees, annual turnover and/or total assets with industry-specific threshold
  
  – Working definition:
    
    • businesses in South Africa with fewer than 200 employees
Key concepts

• Knowledge-based SMMEs:
  – have systemic, knowledge-based resources as its prime competitive tools (Duhan et al., 2001)
  – offer products and services based on the knowledge and experience held within individuals and systems
  – continually gather information, develop skills and use experience to enhance their products and services (Levy and Powell, 2005:267-268)
  – Expect that these enterprises would be more likely to use information for decision-making and have knowledge and experience of ICT
Key concepts

• **Owner/manager(s):**
  - Majority of managers of small businesses are also owners
  - Significantly control daily operations
  - Primary decision-maker(s) (Gibcus and Van Hoesel, 2008; Martin, 1998)
Key concepts

- **Information need**
  - In such a business context information needs arise as a result of “a specific task that is associated with one or more of the work roles played by the professional” (Du Preez & Fourie, 2010:69)

- **Information seeking behaviour**
  - Information need drives the professional to seek information (Choo, 2006): “the purposive seeking for information as a consequence of a need to satisfy some goal.
  - In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web)” (Wilson, 2000: 49)
Background and motivation for study

- SMMEs play an important part in all economies but is particularly important in developing economies
  - United States
    - over 25 million micro-enterprises
    - encompass 88% of all businesses (Kamal, 2014)
  - South Africa
    - Estimated 2.2 million SMMEs employ an estimated 55% of the country’s labor force (Herrington, Kew, & Kew, 2009)
    - Majority of SMMEs are considered survivalist micro- and small enterprises
Background and motivation for study

- Whilst survivalist SMMEs play an important role to alleviate poverty and provide a source of income, non-survivalist or growth SMMEs drive economic growth and international competitiveness.

- Although resources are particularly scarce for survivalist SMMEs, growth SMMEs also have limited resources that need to be utilised for maximum return.

- To do so, timely information about the organisation, its processes, its customers, its business partners and its environment must be available to inform decisions and actions to achieve or maintain a competitive advantage in the marketplace.

- Informed decision-making is limited by capacity to access timely, current, relevant and adequate business information (Mutula & Van Brakel, 2006).
Background and motivation for study

• Access to information is an important component of SMME competitiveness (Fuellhart & Glasmeier, 2003)

• Corporate information competence is a critical success factor for SMEs (Sen and Taylor, 2007)
  – “information management skills and systems to support business strategy and operations: generate, gather, analyse, disseminate and use the appropriate information effectively, ensuring information security, validity and integrity.”

• Ensuring that high-quality information is consistently available and disseminated to those who need it in any organisation is
  – a challenging task
  – “one of the most under appreciated contributors to high performance and competitive advantage” (Neilson et al., 2010)
Background and motivation for study

- The ability to utilise computer-based systems to meet information needs is a key influence upon the competitiveness of SMEs (Levy and Powell, 2005:vii)
  - with even micro-enterprises hindered from growth and efficient functioning by an inability to use information and communications technology (ICT) effectively (Kamal et al., 2011)
Capita selecta of research in Africa


• Wamuyu, P. (Accepted). The Impact of Information and Communication Technology Adoption and Diffusion on Technology Entrepreneurship in Developing Countries: The case of Kenya. Information Technology for Development, 15(2).
Capita selecta of research in Africa

- In South Africa many studies have been conducted according to one or more of the following:
  - Size of the enterprise (Mpye et al, 2007)
  - Characteristics of the owner/manager (Jiyane & Mostert, 2010)
  - Industry such as tourism (Migiro and Ocholla, 2005) and e-government (Mitrovic & Bytheway, 2009)
  - Geographic location (Cloete et al, 2002; Jacobs & Herselman 2006; Migiro & Ocholla, 2005; Mitrovic & Bytheway, 2009)
  - Specific type of ICT, for example, Internet-related technology and the associated e-commerce (Cloete et al, 2002)
Theoretical framework

• Leckie *et al.*’s (2005) general model for information-seeking behavior of professionals
  – encompasses work-related information seeking based on the tasks arising from the work context
  – professionals such as engineers, doctors and lawyers
  – Case (2002:116, 128) considers Leckie et al.’s model to be more general than the authors themselves imply who limit the model to professionals.
  – Implication is that Leckie et al.’s model can be used to examine the information seeking of owner-managers of SMMEs as well
Theoretical framework

Source: Leckie et al. (1996:180)
Objectives of the study

1. To determine the information needs of owner/managers in knowledge-based SMMEs in South Africa
2. To identify the characteristics of the information needed by these SMME owner/managers
3. To identify the sources of information consulted by these SMME owner/managers to meet their information needs
4. To determine these owner/managers’ awareness of information and information sources available to them
5. To determine the role of ICTs in meeting these SMME owner-managers’ information needs
Methodology

- **Research paradigm and approach**
  - Interpretive, qualitative

- **Sampling**
  - Owner/managers of knowledge-based growth SMMEs in Gauteng, SA
  - Selected through purposive and snowball sampling

<table>
<thead>
<tr>
<th>Nature of business</th>
<th>Legal form</th>
<th>Year est.</th>
<th>Scope of operations</th>
<th>Employees (incl. owner/manager(s))</th>
<th>Highest qualification of owner/manager(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management consulting</td>
<td>Sole proprietorship</td>
<td>1995</td>
<td>International</td>
<td>1</td>
<td>Doctorate</td>
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<tr>
<td>Graphic design</td>
<td>Close corporation</td>
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<td>International</td>
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<td>Bachelor</td>
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<tr>
<td>ICT services and software</td>
<td>Close corporation</td>
<td>2002</td>
<td>National</td>
<td>9</td>
<td>Bachelor</td>
</tr>
<tr>
<td>ICT services and software</td>
<td>Private company</td>
<td>2000</td>
<td>National</td>
<td>10</td>
<td>Doctorate</td>
</tr>
<tr>
<td>E-learning platforms and content</td>
<td>Close corporation</td>
<td>2000</td>
<td>Regional</td>
<td>13</td>
<td>Doctorate</td>
</tr>
<tr>
<td>ICT services and software</td>
<td>Private company</td>
<td>2001</td>
<td>International</td>
<td>130</td>
<td>Honours</td>
</tr>
</tbody>
</table>

- **Data collection method**
  - Semi-structured interviews
Results

1. To determine the information needs of owner/managers in knowledge-based SMMEs in South Africa
   - Professional work role
     • Industry trends
   - Owner work role
     • Legislative and regulatory requirements
       – revenue service (SARS): taxation
       – registrar of companies (CIPC): registration and ongoing filing requirements
     • Financing and credit
       – Investors (venture capitalists, business angels)
Results

1. To determine the information needs of owner/managers in knowledge-based SMMEs in South Africa (continued)
   - Managerial work role
     - Financial information, forecasts/projections
     - Performance data, benchmarking
     - Customer information
     - Market research and intelligence, e.g. economic conditions
     - Competitive intelligence and technology watch
     - Competitor information
     - Recruitment/Potential employees
     - Legal information – contracts, collection
Results

2. To identify the characteristics of the information needed by these SMME owner/managers
   – Availability/Accessibility
     • Low investment of time and effort
   – Ease of use
   – Credibility/reliability
   – Relevance
3. To identify the sources of information consulted by SMME owner/managers to meet their information needs
   - Own knowledge and prior experience
   - Trusted third parties
     - Financial advisor / accountant
     - Family and friends
   - Printed media and Internet
     - Blogs
     - Trade publications and books
   - Broadcast media
   - Nearby university’s multimedia centre
   - Other SMME owner/managers
Results

4. To determine owner/managers’ awareness of information and information sources available to them
   - No mention of:
     • Libraries
     • SMME-specific consulting services
       - e.g., Amalgam IT Partners, Genesis Management Consulting and Space Age Technologies, which offer “virtual chief information officers”
   - Identified need for:
     • tender database for SMMEs
     • competitive intelligence and technology watch
5. To determine the role of ICTs in meeting SMME owner-managers’ information needs

- Office productivity software (Excel, Google Apps)
- Project management (BaseCamp, Teambox, Trac)
- Configuration management (CVS)
- Data management (Talend)
- Marketing (Campaign Monitor)
- Accounting (Pastel, Quickbooks, Freshbooks)
- Internet banking
- Disaster recovery management services (Mozy)
5. To determine the role of ICTs in meeting SMME owner-managers’ information needs (continued)

- Cloud-based, software-as-a-service (SaaS) and open source solutions preferred
  - Cost-effective, limited in-house IT skills required
  - but reliable internet connectivity / bandwidth
- Time is a limiting factor
  - Don’t have sufficient time to investigate ICTs and often to test those recommended by trusted parties
Conclusion and recommendations

• Confirmed previous findings, both from South Africa and globally, with regard to growth-based SMME information needs, seeking behavior and ICT use are still valid:
  – Both information and ICT play an important role in the selected knowledge-based growth SMMEs
  – Increase SMME awareness of available information sources
  – Expand available information sources to SMMEs
  – Provide support and guidance to ensure that ICT is used to fully exploit available information for decision-making
Thank you for your time

Comments? Questions?

ponelis@uwm.edu
shanaponelis
http://www.linkedin.com/in/sponelis
@ShanaPonelis
References


References


