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

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Outline

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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>
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<tbody>
<tr>
<td>Management consulting</td>
<td>Sole proprietorship</td>
<td>1995</td>
<td>International</td>
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<td>Doctorate</td>
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<tr>
<td>Graphic design</td>
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<td>International</td>
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<tr>
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<td>National</td>
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<td>Bachelor</td>
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<td>2000</td>
<td>National</td>
<td>10</td>
<td>Doctorate</td>
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<tr>
<td>E-learning platforms and content</td>
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<td>2000</td>
<td>Regional</td>
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<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
Results

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
Results

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?

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References


References


