Journal of Accounting & Marketing
ISSN: 2168-9601

Papathanasiou, J Account Mark 2012, 1:2
DOI: 10.4172/2168-9601.1000e106

Editorial Open Access

Participatory Decision Support Systems, Marketing and Sustainability

Jason Papathanasiou*

Department of Marketing and Operations Management, University of Macedonia, Greece

Editorial:

Decision Support Systems (DSSs) are generally based on a couple of pillars, Information System technologies and Operational Research (OR) models and techniques; marketing being a core research topic of the latter. Sustainability on the other hand is currently and for some time now on the focus of international research as topics like climate change, waste management, environmental protection and biodiversity conservation are high on the agenda. How can DSSs, OR and sustainability be all three combined into an information system that will enable the decision makers to make sound and robust marketing (and not only) related decisions, for instance about agribusiness, taking on the same time into account the sustainability factor? To add to the complexity of the above statement, active public participation to such a system would be much welcome, if not a prerequisite.

Participatory approaches are not new; successful Participatory Geographic Information Systems (PGIS) linking spatial data with governance decisions have been around for some time; Elwood [1], Dunn [2], Jankowski [3] and Duval-Diop et al. [4] provide some critical issues regarding modern PGIS, Sieber [5] presents a literature review of the state of the art and framework, while Hessel et al. [6] refer to a successful case study in Burkina Faso. Specialised Marketing DSSs have also been around for some time, Little [7] introducing and defining the concept. Nearly a couple of decades later, Wierenga and Van Bruggen [8,9] presented a classification of marketing decision support tools and technologies, and used the term "marketing management support systems", describing them as any device combining information technology, analytical capabilities, marketing data, and marketing knowledge, made available to one or more marketing decision makers, with the objective to improve the quality of marketing management.

As far as the sustainability factor is concerned, the EU has a concrete research policy under the Framework Programme 7 research scheme currently and others in the recent past. The TESS project (Transactional Environmental Support System, www.tess-project.eu) pursued a bottom-up approach; it aimed at mobilizing the local population, by producing a system capable of handling huge amounts of diverse information in a coherent and easy way for the user with limited IT knowledge. The author participated in TESS both as a deputy project manager and as a researcher; it produced the design of a decision support system that will make it easy for policy makers to integrate local knowledge into their decision making processes, while at the same time guiding and encouraging local activities that restore and maintain biodiversity and ecosystem services. The TESS vision is to enlighten, encourage and empower local communities to support biodiversity restoration across Europe, through an internet system that unifies all available knowledge to guide decisions for the benefit of biodiversity and livelihoods Kenward et al. [10].

Put simply, to take the sustainability factor into account when making marketing decisions that affect the environment, active public participation is needed in order to acquire credible data and there is much room for research combining the above three elements. TESS partners made a lot of efforts to assess local willingness, attitudes and capabilities regarding the new technologies, in order to discover how much hidden local knowledge could be brought to the surface. Data from the local level, after a proper harmonization procedure, can be then fed to the regional and national level for implementing policies, marketing issues included. This should be of great help to formal assessment methods, like the EU's Environmental Impact Assessments (EIA) and Strategic Environmental Assessments (SEA), to produce more robust, tangible and exploitable results. TESS showed that the local population is both willing and actually keen on participating in such procedures.

The above would require, of course, a very large information system integrating huge databases and environmental plus marketing models. Information systems have actually changed in size and complexity considerably in the last decades Neukom [11], evolving to a global impact level. Murer et al. [12] define very large information systems as "Functionally rich, having a long development history, containing significant legacy parts which need to be replaced or reengineered, being exposed to a high rate of change, having high replacement cost, thus representing a high value to their owners, relying on heterogeneous technologies, being mission critical, having a large number of stakeholders resulting in a federated governance and often in a distributed IT organization". The complexity of such systems tends to increase heavily over time as the number of connections between the different system parts, including legacy systems, grows. The fact is that such systems already exist operating in a global context and the tendency is for their number to increase in the forthcoming years.

TESS also revealed that the environmental modeling and database community is largely fragmented, disparate and uncoordinated; not to mention that marketing models do not always take into account environmental issues. The different scientific groups involved in environmental modeling and data gathering must come to a consensus about the standards for environmental models and databases. The marketing research community should also be involved in the above procedure; after all in a business oriented economy sustainability policies must integrate a marketing component and vise versa. What is more, all models should be accompanied with adequate and easily comprehended documentation, aimed if possible to the non expert user as he should in the heart of the overall design.

As a concluding remark, marketing and sustainability components integrated into a web based DSS will be a reality sooner of later; if active public participation is encouraged the yielded results will have more credentials and applicability. Such complicated systems are not easily built thought, in 1995 only 16% of IT projects were successful in meeting the project scope, time, and cost requirements simultaneously

***Corresponding author:** Jason Papathanasiou, University of Macedonia, Department of Marketing and Operations Management, Agiou Dimitriou 49, 58200, Edessa, Greece, Tel: +30-23810-51756; E-mail: jasonp@uom.gr

Received April 23, 2012; **Accepted** April 24, 2012; **Published** April 25, 2012

Citation: Papathanasiou J (2012) Participatory Decision Support Systems, Marketing and Sustainability. J Account Mark 1:e106. doi: 10.4172/2168-9601.1000e106

The Standish Group [13]; this figure improved later on Anderson [14] but still remains high. Bearing this in mind, careful step-by-step actions are required as the stakes are high; the desired system needs time to develop and become a really useful tool.

References

1. Elwood S (2006) Critical Issues in Participatory GIS: Deconstructions, Reconstructions, and New Research Directions. Transactions in GIS 10: 693–708.
2. Dunn CE (2007) Participatory GIS – a people's GIS? Prog Hum Geogr 31: 616–637.
3. Jankowski P (2009) Towards participatory geographic information systems for community-based environmental decision making. Journal of Environmental Management 90: 1966–1971.
4. Duval-Diop D, Curtis A, Clark A (2010) Enhancing equity with public participatory GIS in hurricane rebuilding: faith based organizations, community mapping, and policy advocacy. Community Development 41: 32-49.
5. Sieber R (2006) Public Participation Geographic Information Systems: A Literature Review and Framework. Annals of the Association of American Geographers 96: 491–507.
6. Hessel R, Van den Berg J, Kabore O, Van Kekem A, Verzandvoort S, et al. (2009) Linking participatory and GIS-based land use planning methods: A case study from Burkina Faso. Land Use Policy 26: 1162–1172.
7. Little JDC (1979) Decision Support Systems for Marketing Managers. Journal of Marketing 43: 9–26.
8. Wierenga B, GH van Bruggen (1997) The Integration of Marketing Problem-Solving Modes and Marketing Management Support Systems. Journal of Marketing 61: 21.
9. Wierenga B, GH van Bruggen, NAP Althuizen (2008) Advances in Marketing Management Support Systems. Handbook of Marketing Decision Models 121: 561-592.
10. Kenward R, Manos B, Arampatzis S, Papathanasiou J (2009) A transactional environmental support system for Europe. In Hrebicek J, Hradec J, Pelikan E, Mírovsky O, Pilmmann W, Holoubek I, Legat R (eds.) Towards eEnvironment (Opportunities of SEIS and SISE: Integrating Environmental Knowledge in Europe). European conference of the Czech Presidency of the Council of the EU.
11. Neukom H (2004) Early Use of Computers in Swiss Banks. Annals of the History of Computing, IEEE 26: 50-59.
12. Murer S, Bonati B, Furrer F (2011) Managed Evolution: A Strategy for Very Large Information Systems. Springer-Verlag Berlin Heidelberg.
13. http://www.standishgroup.com
14. Anderson ES (2010) Are We Getting Any Better? Comparing Project Management in the Years 2000 and 2008. Project Management Journal 41: 4-16.