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Procedia Technology 9 (2013) 463 – 472

Procedia
Technology

CENTERIS 2013 - Conference on ENTERprise Information Systems / PROjMAN 2013 - International Conference on Project MANagement / HCIST 2013 - International Conference on Health and Social Care Information Systems and Technologies

Approaching Market Intelligence concept through a case analysis: Continuous knowledge for marketing strategic management and its complementarity to competitive intelligence

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Abstract

This article aimed to detail the comprehension of Market Intelligence (MI) concept, working theoretically and with a case study analysis. In this work, MI is defined as a cyclic, continuous process designed to continuously produce knowledge from raw and dispersed data and information, added with the notion on how to apply this knowledge for strategic marketing management for a business sector. In the end, a study case is conducted, reaffirming the theoretical findings, to improve MI concept definition through its complementarity with Competitive Intelligence (CI) organizational process.

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Selection and/or peer-review under responsibility of SCIKA – Association for Promotion and Dissemination of Scientific Knowledge

Keywords: Market intelligence; competitive intelligence; marketing strategic management; information and knowledge management.

1. Introduction

Market intelligence (MI) concept calls more attention as demands for knowledge in organizations became increasingly critical in the last years, simultaneously with the phenomenon of data and information disorganized

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abundance. It is expected, from a strategic point of view, that one organization not only reacts to external factors or sectors, but also try to lead its business segment proposing and executing innovative plans and differential strategic positioning [1; 2; 37]. Market intelligence is defined as a process designed to constantly produce knowledge for business sectors from dispersed data and information for strategic market positioning, as an organizational continuum that aims to answer typical decision problems faced by firms when competing in actual business environments [3; 4]. This concept will be developed in the present paper, first from a theoretical point of view, to understand its formation and conceptual network. In this approach it is also an objective to distinguish it from several other fundamentals which MI is frequently confused – as with competitive intelligence (CI) process, studied as a complementary process – and forming a base in order to objectively affirm MI as a formal concept. In the end, a study case from information technology group of companies is observed, which helps to get to the desired objectives for the paper.

2. Conceptual background

The theoretical work starts with the exam of some fundamentals of information science, needed to compose a coherent base to affirm market intelligence concept. This conceptual background starts with data, information and knowledge definitions and advances with the elaboration of a primary view of MI concept which will be concluded in the end of the article with the case study.

2.1 Data, information and knowledge

These basic concepts have been debated by scholars and practitioners of various areas for decades and are essential in the present observation. Here it is presented a particular, referenced and coherent relationship that offers possibility to define and understand market intelligence process as it was previously stated.

As stated in Davenport [5], Tuomi [6] and Lucas Jr. [7] these concepts were defined not only in their fundamentals, but also observing its relationship and integrated application views. Data is considered as an absolute value, as it could be obtained directly from a measurement or collected from an automated source, among many other signals and origins. It shows flexibility to communicate, as it can be easily processed by automated instruments and machinery, but lacks more profound meaning, as it is almost impossible to deduce anything in more detail from the context or process it was created, being just an instantaneous observation of a reality. From those and other authors, information is conceptualized as a collection of correlated data added with context, providing a better condition for deciding, but offering more complexity to be treated or processed. Information increases decision capabilities, but demands additional work to be finally applied [3; 4; 5; 6; 7].

Knowledge is considered to be composed through a collection of information, including descriptions of the processes which produced that information. Knowledge allows maximum decision capabilities, for example, enabling even prediction capabilities [5; 8; 9; 10]. But on the other hand, it shows difficulties to manage, communicate, and presents questionable storage conditions and is critical to be shared, resulting in the need of a specific process to treat it, defined as knowledge management [11; 12; 13; 14; 15].

As another important concept an organizational process can be understood as a complex task which can be integrally or partially managed, showing clear division and relationship among its internal phases, specifying in objective ways when one starts and ends and what are the internal and final results expected to be produced [3; 4]. It is important to note that market intelligence and related factors, as competitive intelligence, both are here studied as organizational processes.

2.2 Market Intelligence

Derived from many areas, intelligence is another concept that motivated various studies and expressive debate. It is opportune, though, to evaluate contributions from other scientific fields and also applied practice to improve market intelligence concept and its relation, answering to the objectives of the present study, considering it for the focus of business strategic marketing decisions.

First, it is opportune to discuss about the definitions of competitive intelligence, as it is detailed by SCIP [17] as a

The process of monitoring the competitive environment and analyzing the findings in the context of internal issues, for the purpose of decision support. CI enables senior managers in companies of all sizes to make more-informed decisions about everything from marketing, R&D, and investing tactics to long-term business strategies. Effective CI is a continuous process involving the legal and ethical collection of information, analysis that does not avoid unwelcome conclusions, and controlled dissemination of actionable intelligence to decision makers [17].

As differences and complementarities of these two processes – competitive intelligence and market intelligence – were suggested before by Jamil [4], there are also some similar aspects that reinforce the conceptual base, demanding a comprehensive observation. Competitive intelligence is affirmed by Kahaner [18] and Miller [19] as a continuous process, so configuring a strategy demand-driven process that has the goal to provide decision support specifically for strategic levels in any organization. It is important to notice that as a process originally designed to produce knowledge from external environment interpretation, CI offers a higher level response with the access to external of sources of data and information, composed mainly from historical phenomena. Market intelligence, on the other hand, composes internal, sectorial (external, but correlated by internal organizational configurations) and external sources to produce specific, focused knowledge to marketing processes and decision making guided to implement aggregated value positioning – specifically strategic marketing planning tasks and choices, acting as an organizational continuum [3; 4], designing strategies and tactics for a future positioning to be considered, planned and executed by an organization [1; 2; 4].

The convergence of strategic results of both processes – CI for strategic decision, such as those in planning and executing strategies and MI for strategic marketing decisions – also allows to understand how they can be complementary and interrelated, reiterating that market intelligence has a more practical, applicative, “to the market” objective as it is designed to support a connection between organizational strategy formulation and answers provided by strategic marketing decisions.

From information technology (IT) and computing science fields, “business intelligence” arises as a relevant and broadly discussed concept. It is used for many interpretations of tools, techniques, methods and integration of resources oriented to produce specific knowledge from disperse sources of information and data, as analysed by [20; 21; 38; 39; 40]. The IT literature concentrates predominantly in technical issues, such as implementation models, physical storage, database structuring and integration. From this point of view, intelligence results from applications processed over technological infrastructure, which offers not only the mechanisms for its development, correlation between logical models to physical implementations, but also for knowledge codification, process modelling, sharing and distribution. Another special aspect is integration, as the business intelligence usually is based on an infrastructure that is implemented through an associated arrangement of organizational resources, not regarding aspects such as cyclic updates or evolution, but thinking it as a solution-driven knowledge provider [15; 21; 22; 34].

For the purpose of this study, market intelligence process is affirmed in terms of its main phases [3; 4; 28; 30; 31; 38; 39; 40]:

- Aggregated chain modeling: to allow understanding how the sector works, where data and information are produced and where knowledge is more critical for strategic marketing decision situations.
- Data and information diagnosis: where business sector data and information are evaluated to constitute a model that represents what is available for initial process design.
- Knowledge diagnosis: to conceive, initially, what are the main contents of knowledge demanded by typical market competitors for decision taking in their strategic market plans.
- MI Process modeling and implementation:
 - Collection: gathering of data and information from organizations of the analyzed sector. External sources, as governmental agencies, research institutes and other partners, if diagnosed as essential or opportune, are also collected.
 - Validation: normalization and correction of data and information collected, as those sources can produce different or mistreated contents that have to be leveled or worked to be compatible (format, updates, identification, etc.) to become understandable as similar for cyclic analysis.[38; 39]
 - Processing: usage of business rules, logic modeling, statistical and other mathematical analysis applied to data and information to produce specified knowledge contexts in terms of reports, concise graphical and dynamic spreadsheets, databases, competitive scenario previews and so on.
 - Communication: results sharing of the processing that are delivered, presented, transmitted to interested market players for further application in their decision scenarios.

Additionally, it can be affirmed for MI process:

- It is a continuous business process, equivalent to that proposed by competitive intelligence fundamentals, but with addition or composition of external and sectorial (similar firms and organizations, related to a commercial or marketing sector) sources of data and information, with more specific goal – strategic marketing management [19].
- It is structured over some predictable and managed tasks, as collection, validation, processing, sharing and results production (for strategic marketing planning) and communication [23].
- This process can be adapted, expanded and improved along the cycles of its complete function in one or in various correlated organizations.

It is opportune to consider this concept as suitable to help or support other managerial task concerning data, information and knowledge, as information systems design, information technology resources application (such as data warehouse and data mining) and marketing strategies propositions (such as customer relation approaches, commercial distribution issues, trademark reformulation and many others) and its implementation. These repercussions improve the understanding of MI organizational application and bringing relevance to the present study [8; 20; 21].

For Maltz & Kohli [28], market intelligence is a business component which improves the quality of scenario prediction, allowing better planning capabilities, especially those related to marketing strategies. Their study can be related to Cornish [29] as a definition of the MI process, with this former author adding a relevant detail about how MI can be applied to process external and internal data and information, allowing to perceive it as tool associated to strategic planning abilities, given by the contribution for the application of strategy analytical models such as the five competitive forces – from Porter [8] - or Swot analysis [1; 2; 8]. In this association of concepts, it is possible to understand a perspective of relationship between tactical planning and strategic, and also about the relationship of the two processes, competitive intelligence and market intelligence.

Makadok and Barney [30] evaluated how market intelligence is related to the strategy and, referring to one remarkable study by Jay Barney, sought to present it as a firm's resource, treated by the RBV (resource based view) techniques, a set of related theories which that was first announced by Edith Penrose in 1958, which considers organizational critical factors, methods, tools, knowledge, processes and assets as resources. This

important theoretical definition allowed many authors and researchers to study how tasks such as planned generation, defence, maintenance, change management, valuation and many others are related to strategic resources positioning and how to evaluate what are organizational most critical resources [1; 2; 8]. For these authors, market intelligence process really allowed one company to understand its competitive position and actual scenario and depict new proposals which can define a business situation in a future moment, retaining and develop competitive differentials, or resources. It is important to reaffirm that strategic marketing basic orientation is to propose competitive differentials in value aggregation on products and services, as it will be perceived by customers. This planning will be done proposing to execute a strategy proposed by a firm, thus relating both areas – strategic and marketing planning – and its theoretical contributions to this study [24].

These findings also can reach new trends when by Hawtorne & Kromity [31] it is observed how to plan and execute strategic marketing, in modern social network tools and environments. Market intelligence, announced by the authors in a very similar way to that worked in this paper, is presented as a set of processes for dynamic product and services offer, as those social networks create expressive amount of enabling factors to obtain those results – information and knowledge to be processed and applied.

Finally, it is important no notice that, as developed in [3; 4; 22; 35] one special aspect which differs but also offers a relevant complementarities between CI and MI is the main objective of these processes: while competitive intelligence is devoted to provide detailed answers for strategic decisions for one company, market intelligence has as its principal goal to supply strategic marketing planning knowledge continuously. Thinking this way, based on the references cited above and others which constitute the fundamentals of each concept isolated, it is opportune to think how CI has, for instance, a goal to produce a clearer scenario for a strategic decision which will probably asks for a marketing plan, which, by its turn, driven by strategic objectives previously defined [1; 4]. As this integration performs, it can be designed an association where CI helps to solve problems in the strategic planning phase, which produces detailed strategic goals. On the tactical level, specifically at marketing planning, MI provides improved conditions to plan and execute marketing positioning according to strategies thought by the organization, bringing a clearer view of various market signals, aspects and facts. CI has the organization as its first objective; MI has the market, a complete business sector.

Concluded this conceptual framework discussion, it is possible to develop a further work about the integration and a case study where it is shown, as cited in the last words of the former paragraph.

3. Strategic decision scenarios and its demands for continuous knowledge

Strategy is here presented still close to conceptual background section and initiating the case study segment of this article. It can be regarded, initially, as a discipline oriented to propose future positions for one organization as it studies its competitive resources, capabilities, perspectives and possibilities to implement actions designed to reach established goals [1; 2; 24]. It is renowned as a “knowledge demanding” process based on evaluations such as:

- External environment analysis, considering competitors, suppliers, customers, legal aspects, business rules, etc. and its changes along a period of time [1].
- Correlated competitive scenarios proposition as simulations, business metaphors, cases and models, as strategic business games [14; 25].
- Indicators proposition and monitoring, as financial quantitative analysis, reputation, performance and many other factors that can be set by strategy staff and followed through a plan execution in order to assess for its success [25].

In all these cases and in many others, strategic planning and execution demands market knowledge to evaluate results, redesign plans, set new goals, manage resources, modify and adapt business positioning. The “meaning” or “sense” about competitive scenarios which will result in more precise strategic propositions are affirmed by various authors as related with structured knowledge availability [12; 13; 32].

As it can be seen from this context, strategy formulation and execution are knowledge dependent, demanding for its continuity reliable and updated knowledge availability and is related to practical marketing planning, evidencing an opportunity for relationship between CI and MI processes, as intended phenomenon for this study.

Strategic marketing decisions are the objective of the MI process, as the knowledge provision aims to solve problems, allowing decisions with clear risk delimitations and implementation results with better customer aggregated value perspectives, attending to the basic organizational marketing demands [24; 26; 27]. Typical decisions of marketing processes that can benefit from market intelligence are: product line configuration and distribution, pricing, advertising and general communication, differentiation as a value-based strategy and marketing channel analysis. As examples of knowledge needed in usual marketing decisions it can be perceived: consumer behaviour details, demographic perspectives and constraints, customer reaction to distribution forms and communication, distribution channels performance and financial performance for all productive chain components.

4. A case study in information technology market

As defined in the former sections of this work, market intelligence will be discussed as it was proposed for a real project, planned and being in use for IT sector companies in Brazil. The objective of this case study is to precisely understand its capabilities as a process to offer strategic marketing decision support when it continuously produces knowledge for a competitive sector. With the definition objective, MI process will be presented and discussed in its complementarity to competitive intelligence analysis, adopted by some companies of this sample sector, resulting in more precision to MI conceptualization.

4.1 Case sample

For this study, a group of sixteen companies, from the Brazilian information technology market were considered, forming a representative association of final user-oriented software developers. These companies didn't show expressive diversity in their development software processes – both had a quality certification similar to CMMI practiced in Brazil, called MPS.Br [33] – although having different target markets – public, health, management, operations, etc. – and also over their organizational structures and product lines. As these conditions show, the group was formed by almost homogeneous companies which could benefit from both processes – competitive intelligence and market intelligence.

A first study with the group was conducted, using interviews with owners and managers of the companies to understand how they plan and execute their strategy and marketing, according to their strategy. This first research phase showed a predominant scenario of personal, owner-centered, conduction of strategic planning and execution. Two companies were specially selected for the additional observation as they presented a more structured strategic decision-making process for planning and monitoring. These two sample companies also had evidences of competitive intelligence procedures, as they had a cycle of problem-solving approach for strategic problems, executed by specialists – in one company, the board of directors and tactical managers and in the other by a special board, invoked when a decision of this level is identified – to produce scenarios and presenting to companies directors for final decision. These two companies, regarding this approach to CI process, were observed for the study progression.

Analyzing for market intelligence perspective, all sixteen companies were considered, as they contracted a service for MI development from a consulting company, specialized on designing and implementing these processes for sectors, in this specific case as a “pilot” project. This group can be increased by adhesion of other interested firms, even associations, in the future, with the executive adaptation of the MI process executed by the consulting firm. For our study purposes, this scenario is considered correct, as there is a group of sixteen

companies that are in a marketing intelligence process and a subset of two that were precisely regarded as practicing competitive intelligence also to promote a better strategic decision, through a problem-solving specific cycle.

4.2 Competitive intelligence in the subset

Two of the sixteen companies applied decision-making procedures that can be considered competitive intelligence approaches, as described in the following.

The first company has a monthly strategic planning review meeting where some decisions are classified as “complex” and sent to a board composed of the directors and some invited tactical managers to clarify the strategic goals, identify key process indicators and its repercussions, and detail some alternative scenarios with its corresponding risk levels. This work is done usually in “one-day focused” journey which, at the end, generates a composed presentation for the board that, in an additional level, decides in favour of some scenario. It is possible to understand the internal phase in responsibility of this specific “council” of strategic and tactical managers as a competitive intelligence cycle, based also in the standards adopted by their work which were identified in the personal, interview-based research, as composed of question proposition; related information collection; processing; analysis and result communication. This cycle is similar to the theoretical propositions by [17; 18; 19].

The second company has a less precise cycle, with participation of external consultants as a permanent configuration of a special board who is invited to answer to strategic questions periodically. Although less formal, it has adherence to competitive intelligence principles and is also regarded to be of strategic contribution by the organization, allowing the same perception as in the first case, as this second company showed also a structure, more implicit, of data and information collection to solve one specific strategic problem, which was identified and provoked the CI-like cycle.

4.3 Market intelligence and its association with competitive intelligence

The group of sixteen companies is being attended by a consulting firm which works configuring and implementing market intelligence processes. As a representative group of firms, relating to commercial, management and strategic and marketing positioning, it was initially composed through invitations, in a commercial contract, sent by the consulting company and was finally formed two years ago. Its market intelligence project originally intended to execute a complete cycle every semester, after the modelling of sector’s value chain and the diagnosis of data and information available and needed knowledge study was conducted.

The process itself, which was agreed by the consulting company and the members of IT group was configured as cited above, consisting of the phases of collection, validation, processing and knowledge sharing, following a schedule distributed over the semester and also with previously agreed forms, reports and communication material also defined in the beginning of the first MI cycle. MI process was executed four complete times before this study was conducted, enabling to affirm the findings related above, which details the complementarity of CI and MI processes, as it was examined in the two group members.

For the particular study of market intelligence, it is possible to confirm that the concepts detailed before for the process, as exposed in the previous theoretical work, were found in the results produced by the consulting company, delivering strategic marketing planning knowledge as agreed with the group of IT companies. The next section will then discuss how the complementary association of CI and MI is useful to confirm MI concept, as an objective of this study.

4.4 Complementarity with CI and the confirmation of MI

It was perceived that expected results for both tasks – competitive intelligence and market intelligence – were delivered as expected. The process of MI held by the consulting was working consistently with the start of data and information collection on the beginning of every semester, followed by a semi-automatic (data analysis tools, some manual comparison in a “by sample” criterion and direct interviews when needed) validation, processing and production of the negotiated results. Competitive intelligence process was being in use by the two firms, as presented in a former section, answering asynchronously strategic questions for planning.

The complementarity was evaluated in the precise moment when, in order to answer for execution of a strategic goal, a marketing plan was demanded, and its two initial phases – opportunity analysis and segmentation – was elaborated and executed. These two phases, denoted as “strategic level marketing” or “strategic marketing management” [23; 24; 39; 41] have strict relationship both to strategic and marketing decisions, analysing external information and relating it to internal knowledge in order to set goals and correspondent actions to be taken to reach those established scenarios.

The content connection between those process occur exactly when the two organizations needed support to correlate its internal resources – as internal teams configuration, action plans, usage of information technology resources (for instance, to put a remote point-of-sales to operate directly reporting to the company’s headquarter) – to external events. Competitive intelligence process, held as announced above, identified precisely these resources based on the objective design of external demands.

Market intelligence process provided the suitable level of detail, producing a coherent view of the competitive environment – informing about typical product lines, distribution channels performance, customer interests and chances, market share precise levels and so on – allowing to activate the competitive intelligence cycle, demanded by a more precise strategic question / problem to be solved.

So, the complementarity helped to conceptualize correctly what MI can do in a planning effort by one company: dynamically provision of knowledge (as some of the results are clearly trends, historic performances, analytical market views and so on), enabling to compose decision situations that can be adjusted or clarified through a competitive intelligence analysis. The final result is a more manageable plan, with correct connection between strategic, tactical and operational levels, precise identification of key process indicators (“KPI”s) and their correct expected values and range of variation, risks and their associated mitigation, among many other details that qualifies a strategic plan with more chances to be successful. CI and MI processes work together, each one with its conceptual background, which is confirmed exactly by their cooperation providing better planning and execution conditions.

5. Conclusion

Informational processes are among the most demanded managerial support tasks for modern organizations. As more data and information are produced in disorganized way, dispersed through complex business structures, in unplanned manner, resulting even in controversial and conflicting strategic scenarios, a demand for applicable knowledge became more noticeable.

Improved by information technology, communication support and efficient management structures, knowledge management is indicated to produce the needed clarification for those decisions. As demands grow, these processes to produce knowledge are implemented in reactive way by organizations, resulting eventually in their lack of configuration and imprecision.

In this paper, market intelligence process was conceptualized, based on a theoretical review that was based in information science, information technology, business strategy and marketing contexts. MI concept was

initially affirmed to be a process, a continuum, which produces knowledge to a company, based on a series of phases as aggregated value chain modelling, knowledge diagnosis, collection, validation, process and knowledge sharing for similar companies, forming a representative group of a business sector.

To detail and validate this conceptual definition, a study of its complementarity to other related concept, competitive intelligence, was conducted. This analysis was opportune, as both identified correctly MI definition, confirming the former findings from the literature and established a potential relationship with CI, a concept already discussed and with a more stable definition. This theoretical separation and correlation was explored in a case study of a group of firms of information technology sector – software development – where two of them practiced competitive intelligence-like processes.

The final result of this study is the reiteration of market intelligence concept, both from specific theoretical review and its complementarity for competitive intelligence concept, studied in a theoretical context and through a case analysis. Further studies which search to generalize these findings are recommended, together with application of classical models that associate market intelligence to strategic marketing planning, organizational learning, strategic monitoring and other aspects or study fields that look to understand deeply how organizations apply knowledge – produced by themselves or by its competitive sectors – for decisions.

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