

Performance Management within Social Network Sites: The Social Network Intelligence

Process Method

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Abstract

The huge amount of data and complexity of decisions in the current information age requires decision makers to utilize information analysis tools for supporting business decisions. This is also the case for social network sites which control huge amounts of data just waiting to be transformed from information to valuable knowledge through Business Intelligence methods. These techniques are not yet widely in use within companies whose core business revolves around user generated content. This research conducts a qualitative research to provide more knowledge and a deeper understanding of a Business Intelligence approach which supports the business model of companies exploiting a Social Network Site. Available Business Intelligence process models do not take the organizational aspects into account as continuous process improvement elements. Therefore, this work proposes our new method: the Social Network Intelligence Process (SNIP) Method. The SNIP Method and its related management information items were validated through a series of expert interviews and an in-depth single case study at the leading Dutch social network site.

Keywords: business intelligence, social network site, web 2.0, critical success factor, key performance indicator, value discipline, business model.

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1. The information gap within social network sites

The number of social network site users is still increasing rapidly with over two-thirds (67 %) of the global online population having visited a Social network site. Therefore, the amount of user generated content is increasing as well (ComScore, 2009; Nielsen, 2009). The aim of Social network sites is to share personal information, have fun and to keep in touch with friends. This paper uses the definition from Boyd and Ellison (2007) in which Social network sites are defined as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others. A huge amount of user generated content is stored within the databases of Social network sites. Nevertheless, they are not using all the information that can be extracted from the available data because a proper overview and in-depth insight are missing. The increased information overload makes it more and more difficult and time consuming to identify relevant information for decision purposes (O'Reilly, 1980). This is a missed opportunity for Social network sites dealing with user generated content and not effectively exploiting that abundance of contextual information. The huge amount of data and complexity of decisions in the current information age, requires decision makers to utilize information analysis tools for supporting business decisions (Nemati et al., 2002; Turban et al., 2007). The need for fast decision making on the one hand, and the longer time needed to acquire the right information on the other hand causes a so-called "information gap" (Den Hamer, 2005). The data within the social network's databases can be transformed from information to valuable knowledge with the aid of Business Intelligence (BI) to gain a competitive advantage (Porter, 1985). However, BI is not widely used within companies whose core business revolves around user

generated content. Moreover, scientific literature at the intersection of social network sites and BI is only scarcely available (Punie, 2008). This paper therefore uses the definition and confirms the view of Osterwalder and Pigneur (2002) who place the business model between the strategy (strategic view) of a company and the process (operational view). They state that a business model is a “conceptual and architectural implementation (blueprint) of a business strategy [that] represents the foundation for the implementation of business processes and information systems”.

By conducting a qualitative research consisting of a literature study, interviews and a case study, this paper provides more knowledge and a deeper understanding of Business Intelligence methods to support social network site business models through the introduction of the Social Network Intelligence Process (SNIP) Method which appropriately aligns these aspects. This work is, therefore, centered around the following research question:

“In which way can Business Intelligence support the business model of companies that exploit social network sites?”

2. Research methodology and structure

When little is known about a topic, or phenomenon, qualitative methods can be used to create better understanding (Strauss & Corbin, 1998). This is also the case for this research and hence a qualitative approach is used. For this research the qualitative approach of literature research and interviewing is used to support and validate theoretical findings and to expand the view of the domains. The other qualitative research method that is used in this thesis research is a single case study. The purpose of the case study is to evaluate the result of our literature study and expert interviews as the foundations of our Social Network Intelligence Process (SNIP) Method.

This paper is structured as follows. The first chapter presents a literature review on social network sites, theories and business models for social network sites, and Business Intelligence in general. The next chapter describes the proposed solution for incorporating Business Intelligence within social network sites, elaborating on the process model and its deliverables. Then, the summary of the main outcomes, findings and arguments of the study are presented. The final chapter summarizes the main conclusions of this paper and provides recommendations for further research at the intersection of social network sites and business intelligence.

3. Social network sites and their characteristics

Human beings are very social in their natural behavior and this is one of the most important elements for our existence (Maslow, 1954). With the rise of the internet this phenomenon of being social is extended from merely “offline” connections to new online connections. Social network sites are tapping into this phenomenon.

What makes social network sites unique is not that they allow individuals to meet strangers, but rather that they enable users to articulate and make visible their social networks (Boyd & Ellison, 2007). Social network sites are a means for self-presentation and for building and maintaining contact with friends and acquaintances (e.g. Donath & Boyd, 2004; Boyd, 2006; Boyd & Ellison, 2007). Users have a personal profile: unique pages where a person can “type oneself into being” (Sundén, 2003). Profiles usually include demographics and personal preferences completed with a profile picture and some other media related to the user.

This paper explores social network sites and their internal and external forces with a literature research in the existing scientific literature, the results of which are shown in Table 1. The Web 2.0 characteristics as observed are compared for applicability in the field of social network site-specific factors. The outcomes of the comparison are explained hereafter. It is

important to establish that the social web characteristics are presented in an alphabetical order and not based on their importance.

Table 1: Comparison of social network site-specific factors in the scientific literature.

Högg et al. (2006)	Anderson (2007)	Brandtzaeg and Heim (2008)	Isaias et al. (2009)	This paper
Social environment	Open-ness	Harassment/bullying	User content addition features Development tools	Affordance
Interactive exchange of information	Architecture of participation		Availability of content to justify user's access	Collaboration
Content	Individual production and UGC	Low quality content	User's input	Content
Network effect	Harnessing the power of the crowd Network effects, etc.	Lack of interesting people/friends attending	User's critical mass figures	Network effect
Principles of "free economy"		Over-commercialized	Revenue models	Revenue model
Trust building services	Trust, privacy, security	Low trust Dissatisfaction with moderators		Trustworthines s
User acceptance	Rich user experience	Low usability Time-consuming/ isolating	Ease of use of component	User experience

Affordance

In this research affordance is an action that an individual can potentially perform on a social network site by using a particular tool or functionality. Parks (2008) defines that affordance are functional and relational aspects which frame, while not determining, the possibilities for agentic action in relation to an object. In this way, technologies can be understood as artifacts which may be developed and shaped by the action humans use in interaction with, around and through them. In other words, affordance is about how a user interacts with the social network site functionalities. This affordance does not have to be predefined by a particular functionality, and refers to any application that enables a user to undertake tasks in their environment, whether known or unknown to him/her. An affordance consists of an intended part and an unintended part. The intended part is about how a specific functionality is intended to be used. The unintended part is how the users understood or shaped the interaction with a particular functionality. This unintended part consists of desired or unwanted actions undertaken by the users. For example, consider a photo uploading functionality on a social network site. In general as the term photo 'uploader' suggests this contains a functionality developed and offered by a social network site to transfer photos from the user's computer to the site. What could happen in this case is that the user of a social network site turns out to be unaware of or malignant to this functionality and uploads another file extension to this uploader function (Anderson, 2007; Isaías, Miranda, & Pífano, 2009). This is when the unintended part emerges from the perspective of the photo uploader function developer. This unintended part could lead to more user activity on the social network site which is a positive factor but in retrospect this demands a certain reliability of the underlying systems. Next to this, the content of the other file extension could be desired (e.g. user activity) or unwanted (e.g. system reliability or harmful extensions and content) (Högg et al., 2006; Brandtzæg & Heim, 2008). Affordance emphasizes how each individual within a group utilizes the

environment to perform their contribution. A change in the form of activity is reflected by a change in which affordances are utilized.

Collaboration

Collaboration is one of the most important changes in the evolution of the Web to the more social version 2.0. The “architecture of participation” described by Anderson (2007) means that the way a service is actually designed can improve and facilitate mass user participation. This fundamental is endorsed by Högg et. al. (2006) which describes sharing and creation as main fundamentals of web 2.0 in which an interactive exchange of information is the most important process. Social network sites are the “architecture” for interaction and multimedia information exchange in which every user can participate. Information is considered in the broadest possible form. It can be video, data or text content, as well as enriching this content through metadata, annotations or history (Högg, Meckel, Stanoevsk-Slabeva, & Martignoni, 2006). Users are stimulated by social network sites to keep their content updated and constantly adding new information to their profiles. Social network sites do this by generating the need to keep up with the other members of the social network sites and by providing functionalities that promote traffic to the users content by showing updates and changes (Isaías et al., 2009).

Content

Content grows as a result of users collaborative activity, as described in the Collaboration section above (Anderson, 2007). Content is hence the most common form of social network sites contribution. Content in user messages and blogs can be in audio, video, photo, or text format, and, last but not least, information from the user profile (Isaías, Miranda, & Pífano, 2009). For the social network site it is of importance that this user content is easily accepted because users invest time and effort in preparing and publishing this content (Högg, Meckel,

Stanoevsk-Slabeva, & Martignoni, 2006). Therefore, users require content that is interesting and varied or in the case of third party content it should be targeted towards the user group in the social network sites (Brandtzæg & Heim, 2008).

Network Effect

The number of users is one of the greatest indicators of success for social network sites (Isaías, Miranda, & Pífano, 2009). It is not only about the content they add or the collaboration between the users but the most important factor is being connected. The more people will use it, the better it will become (O'Reilly, 2005). It works as a cycle, where success generates use and use will generate success. The Network Effect is a general economic term used to describe the increase in value to the existing users of a service in which there is some form of interaction with others, as more and more people start to use it (Anderson, 2007). The classic example is the telephone. The more people acquire a telephone, the more valuable the telephone becomes to each owner because they have more potential connections. This example can also be translated to social network sites. When more persons create a profile and join a social network site, other users of the social network site can also benefit of the increased popularity of the network. It is well-known that people want to be part of a group of peers whom they respect and like and whose values they share (Maslow, 1954). A major pitfall for the network effect for social network sites is a lack of interesting people or friends attending (Brandtzæg & Heim, 2008). The main objective is, to motivate as many users as possible to participate in the social network site (Högg et al., 2006). Hereafter the exact value of a user is difficult to describe but it is of high value to know the critical mass for social network site companies (Isaías et al., 2009). In Anderson (2007) a brief overview is given about the value of the network and the critical mass by an introduction to the theories of "Metcalfe's Law", the "Power Laws" and "Long Tail" that have a big influence in determining the value of social network sites. Metcalfe's original idea was simply to

conceptualize that the value for customers rises by n^2 and therefore at some point there is a cross-over at which value will easily surpass costs, which means that a critical mass has been achieved. A “Power Law” or “ Long Tail” distribution is represented by a continuously decreasing curve that is characterized by a very small number of very high-yield events and a very large number of events that have a very low probability. No matter which “Law” is used it is still difficult for Social Networks to determine their value in absolute numbers.

Revenue model

The revenue model of a social network site is based on principles of “free economy” (Högg, Meckel, Stanoevsk-Slabeva, & Martignoni, 2006). The users invest time and effort in maintaining their social network sites. Instead of a clear content owner and content consumer the users cover both roles as discussed earlier (Tapscott & Williams, 2007). The users are creating content and consume the content and are constantly updating this content. Hence monetizing is very different from traditional revenue models. Social network sites face revenue challenges with their growing number of users not being translated in increased revenue (Isaías, Miranda, & Pífano, 2009; Högg, Meckel, Stanoevsk-Slabeva, & Martignoni, 2006). As described in Rappa (2009) and Timmers (1998) revenue is generated with selling advertisement space to third parties, additional products or services and membership fees. The use of advertisements can have a negative impact on a website’s image (Brandtzæg & Heim, 2008) and requires a critical mass of numbers, since it is greatly dependent on traffic. When a social network site is using a free access option and a paid premium membership with added features the website must focus on creating value for its members by developing additional functionalities to encourage their users. Social network sites have the challenge to constantly create the best of both worlds with a critical mass of users and making profit (Isaías, Miranda, & Pífano, 2009) and never give the user the feeling of over commercializing (Brandtzæg & Heim, 2008).

Trustworthiness

The information brought together on a social network site within user profiles demands existence of trust in users and in the content they create on profiles. Because trust works both ways the users also need to trust the company behind the social network sites. Therefore a social network site needs trust building services (Högg, Meckel, Stanoevsk-Slabeva, & Martignoni, 2006). Privacy settings, for example, are important to encourage content creation. Some content is private and there is only a limited number of people the users want to share it with. They need to feel their data is protected and that they have the power to decide what is public and what is not. Other trust building services are a long-term relationships and interactions among users and social network sites should support non-anonymity (Brandtzæg & Heim, 2008). Based on the information they provide online, users expose themselves to various physical and cyber risks, and make it extremely easy for third parties to create digital dossiers of their behavior (Gross & Acquisti, 2005). One of the options is to make it more difficult for strangers and users over 18 to contact users under 18 by protecting their profiles as being private. This will limit access only to strangers and not for connections already been made. This kind of trust building solutions will give a positive influence to the image of the company behind the social network sites which is also very important for building up trust (Brandtzæg & Heim, 2008). Social network sites need to be aware around origin, reputation, privacy and security of data (Anderson, 2007) too because it can threaten their image.

User experience

Next to the factors mentioned before one factor really determines the success of the social network site and relates to all of them: user experience. Despite social network site usage is being an entertaining and engaging activity that most people pursue in their leisure time users are very critical. The lack of usability for social network sites could lead to high dropout rates

for users (Fox & Naidu, 2009). Beside the look and feel of the social network sites the usability is also of high importance (Isaías, Miranda, & Pífano, 2009). Usability included the absence of difficulty in changing profile information, unusable interfaces, and difficulty learning the functionalities (Brandtzæg & Heim, 2008). Time is also about motivation. If the social network site is reliable users will invest time in it (Brandtzæg & Heim, 2008). A social network site user should not just feel entertained but also being productive in generating new and updated content. The easier the interaction the higher the probability of user acceptance and loyalty (Högg, Meckel, Stanoevsk-Slabeva, & Martignoni, 2006). The challenge comes from the fact that these systems call for simplicity of access and use, but at the same time, variety and quantity of functionalities accessible in many different ways increase user satisfaction (Anderson, 2007; Isaías, Miranda, & Pífano, 2009).

4. Business intelligence within social network sites

Business models

Social network sites generate revenue by acquiring as many users as possible by offering free services and selling advertisement space to third parties and additional products or services to users or voluntary contributions. With the rise of user-generated content and free access social networking platforms and other free access platforms that yield profit by online advertisement (e.g. Timmers, 1998; Mahadevan, 2000), the Web seems to come close to the accumulation strategies employed by capital on traditional mass media like TV or radio (Tapscott & Williams, 2007). Beer and Burrows (2007) state that perhaps the key-defining feature of web 2.0 is that users are involved in processes of production and consumption as they generate and browse online content. The meaning of value and the process of value creation are rapidly shifting from a product-centric and firm-centric view to personalized consumer experiences (Prahalad & Ramaswamy, 2004). Therefore, it is of high importance for companies who are

dealing with this phenomena to know what their internal and external forces are for their business (Porter, 1985).

Business Intelligence

In literature a well-known agreement on the definition for Business Intelligence is still limited. (e.g. Pirttimäki & Hannula, 2004). Pirttimäki and Hannula (2004) define Business Intelligence “as an organized and systematic process by which organizations acquire, analyze and disseminate information from both external and internal sources significant for their business activities. However, the term can refer to processes, techniques or tools to support the making of faster and better decisions.” According to this definition, Business Intelligence covers all information gathering and processing activities in an organization and therefore this paper also uses this definition of Pirttimäki and Hannula (2004). In line with Pirttimäki & Hannula (2004) also this paper confirms that the theoretical process models seem to be quite similar to each other. However, at the same time, the process models at hand are organization-specific. Nevertheless most of the models do not take the organizational aspects into account as continuous process improvement elements. Therefore, we propose a new method specifically designed for use in organizations which employ social network sites.

When implementing Business Intelligence, several areas or layers are important to take into account, as shown in Figure 1, in top-down order: Vision, Strategy, Critical success factors (CSFs), Key performance indicators (KPIs), and Scorecards and Dashboards (Roekel *et al.*, 2009).



Figure 1: Overview of Business Intelligence layers.

With these layers in mind there are two possible approaches when implementing Business Intelligence: a so-called bottom-up approach and a top-down approach. The bottom-up approach represents the data perspective in which the possibilities are considered to create measurements around the available data to reach the vision of the company. The top-down approach starts from the necessary information that is required to reach the vision and strategy and then transforms this information into actions to acquire the necessary data. To capture Business Intelligence in an integrative way we have developed a new method that is specifically tailored for social network sites from a top-down approach, because with this approach a better alignment between the business model and the strategy can be assured. The method is based on a combination of all relevant Business Intelligence processes and the Plan-Do-Check-Act (PDCA) cycle of Deming (1986).

Value Disciplines

The main organizational aspect is a company's strategy and its success factors. In this research the "value disciplines" of Treacy and Wiersema (1993) are chosen to operationalize this situational factor. Treacy and Wiersema (1993) identify three "value-disciplines" that can

serve as the basis for strategy: operational excellence, customer intimacy, and product leadership.

Balanced Score Card

Because different strategies have different requirements for success it should be tailored to strategic orientation. The perspectives of Kaplan and Norton (1996) are used to make a distinction between these orientation requirements. These perspectives are used to arrange the points of attention or building blocks from the business model. The financial and customer perspectives are external and have an outside-in approach. The internal business process perspective deals with the primary (results) and supporting processes (people and resources). The learning and growth perspective revolves around culture (encourage people to improve) and structure (quality systems and process improvements). The latter two perspectives are added because they are present in every organization. However, they are not dealt with in this research because the external factors have more influence on the existence of companies dealing with Web 2.0 factors (Prahalad & Ramaswamy, 2004; Tapscott & Williams, 2007).

This paper models the situationality, deliverables and the Social Network Intelligence Process (SNIP) Method using the meta-modeling technique of Weerd & Brinkkemper (2008) to reveal the relations between activities and concepts. The Process Deliverable Diagram is shown in Figure 2 **Error! Reference source not found.** and describes the process view on the left-hand side of the diagram which is based on a UML activity diagram (Object Management Group, 2004). On the right-hand side of the diagram the deliverable view is shown which is based on an UML class diagram (Object Management Group, 2004).

5. The Social Network Intelligence Process (SNIP) Method

In Table 1 the overlap between the Business Intelligence layers and the Social Network Intelligence Process (SNIP) Method that are used within this chapter are shown.

Table 1 Mapping between Business Intelligence layers, Plan-Do-Check-Act phases and Social Network Intelligence Process (SNIP) Method deliverables.

Layers	Phase	Deliverables
Vision	Plan	Business Model
Strategy	Plan	Strategy and value discipline
Critical Success Factors	Do	Critical Success Factors and Tree structure
Key Performance Indicators	Do	Key Performance Indicators and Tree structure
Scorecard & Dashboards	Act	BI Product

Plan

In the Plan phase the *business model is defined* wherein the strategic objectives are determined in which the mission is extracted. Also the target market is described in which the scope and market segments are defined. Then the value proposition is specified and the resources are defined. Next the key activities and the cost and revenue model are specified and at last also the value chain is defined. From this first step in which the business model is defined the next step *extract information needs* will be executed. The step *extract information needs* will answer questions regarding the information need or problem at hand emanating from the business model. The last step in the Plan phase consists of the step *determine strategy* with two sub activities. The first sub activity deals with the determination of the value discipline. According to Treacy and Wiersema (1993) any company must choose to

excel in one value discipline and this value discipline must be determined at this point. The second sub activity deals with the strategy. In this activity the targets are specified for the strategic objectives which are used in a later stage to determine if the strategic objectives are reached.

Do

In the Do phase, which is the second phase, first the *critical success factors are defined*. In this research this key situational phase is operationalized through specific SNS situationalities. The sub activities consist out of selecting the critical success factors and linking them to the objectives. A critical success factor is a characteristic of an organization or its environment which is essential for a company's viability or success. Taking either positive or negative values, the key point is the importance of giving these critical success factors extra attention when managing on a strategic level. Therefore, and this is the second sub activity, the critical success factors should be aligned with the objectives on the strategic level. The second step in this Do phase consist of creating a so-called *tree structure*. This tree structure is a newly developed deliverable in Business Intelligence processes to create overview and insight in the alignment between the high-level vision (i.e. dimensions and critical success factors) and the low-level performance indicators (e.g. measures and data). Therefore the last step of this Do phase consists of *specifying the key performance indicators* consisting of three sub activities. The first sub activity defines the dimensions for the tree structure and links them to the critical success factors and the key performance indicators. The second sub activity entails selecting the key measures or so-called key performance indicators for each dimension or critical success factor. KPIS are financial and non-financial metrics used to quantify objectives to reflect strategic performance of an organization. The third sub activity is about identifying the performance indicators. Performance indicators are a measurable degree to which the objective is being achieved and are components of the KPIs.

Check

In the Check phase the information is analyzed. This phase contains three sub activities which collect, integrate and store the information. When going through these steps an overview is made of the necessary KPIs and the ones that lack. This is done through a fit-gap analysis which—for each KPI—selects the following information:

- Performance indicator – clear description of each performance indicator.
- Owner – Who is going to manage and measure the information.
- Source – Where is the information coming from or where can the information be found.
- Availability – Is the necessary information available.

When information needs are not answered after the fit-gap analysis the process rewinds to the Do phase. The dimensions for this research are obtained from Kaplan & Norton's (1996) Balanced Scorecard which consists of the external financial and customer perspectives and the internal business process and learning and growth perspectives which are internally focused.

Act

In the Act phase the Business Intelligence output is utilized. In this stage of Business Intelligence usage, there are two sub steps which consist of dissemination of the gathered information and utilization of the information which is stored in specific Business Intelligence tools and products. The ultimate step in the Business Intelligence process is *making the decisions*. In this final step the managers can use the gathered information as additional knowledge within the decision-making process.

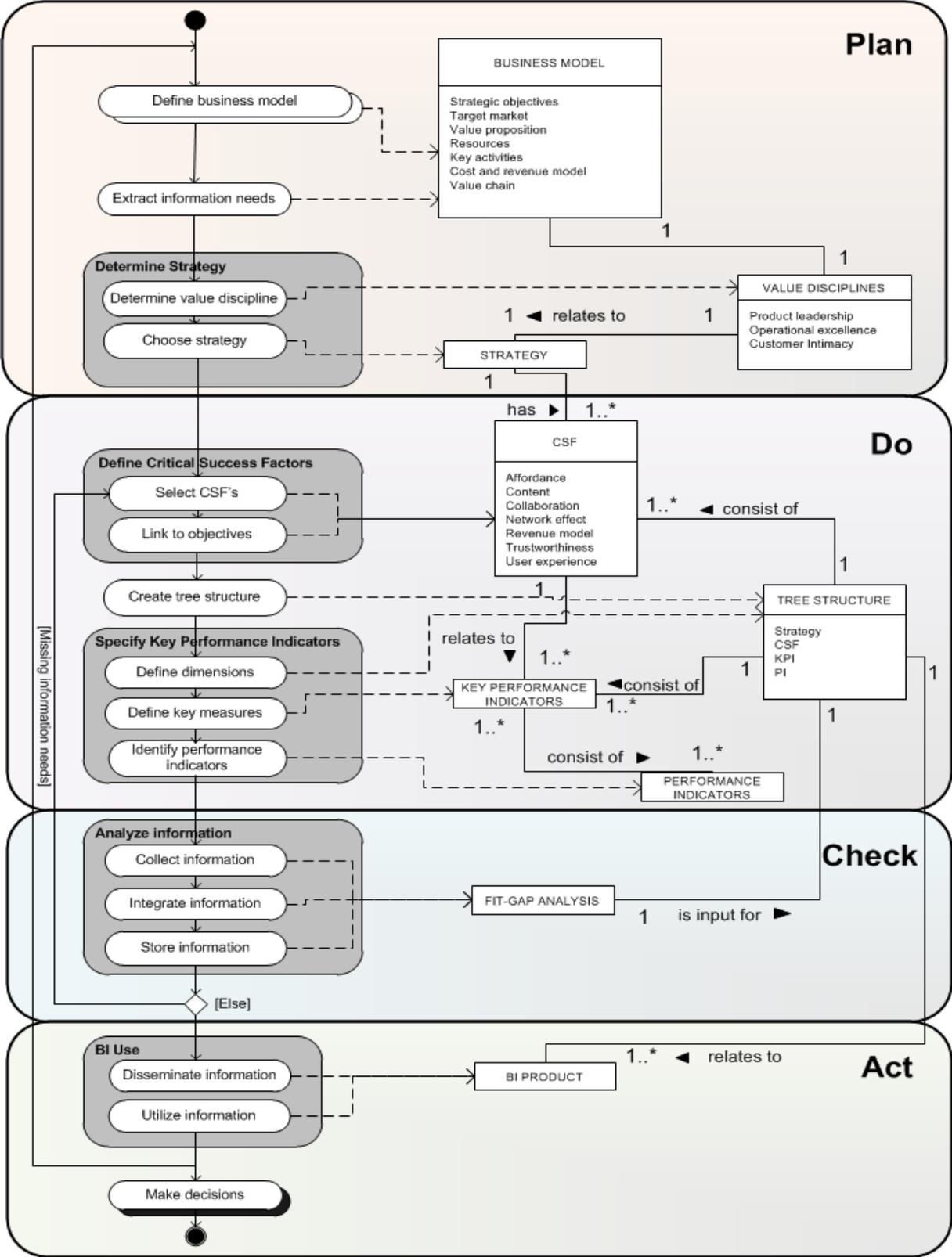


Figure 2: A Process Deliverable Diagram of the Social Network Intelligence Process (SNIP) Method.

6. Validation and results

Apart from the Social Network Intelligence Process (SNIP) Method itself, as shown in Figure 2, also organization specific elements within the Social Network Intelligence Process (SNIP) Method have been newly developed. Major elements are the critical success factors specifically tailored to social network sites. This section validates the social network site-specific critical success factors as well as the Social Network Intelligence Process (SNIP) Method artifact through a number of expert interviews and a single in-depth case study at the largest Dutch social network site.

Interviews

The first validation phase was designed to validate the social network sites specific critical success factors. This is done through several interviews with domain experts as they generally provide the best data available (Strauss & Corbin, 1998). Table 2 shows the respondents which were interviewed.

Single case study

The next validation is done with a single in-depth case study at the largest Dutch social network site. Adhering to the principle of triangulation, three types of data collection sources were applied in this study. The first is documentation which is an important source to verify and complete evidence from other sources. The data is presented in different documentation forms such as e-mail, websites and Excel documents. Secondly, several unstructured interviews were held as well as two semi structured interviews. This interviews were held with two prominent managers of the Dutch social network site. The first respondent is the Business Intelligence project manager and business analyst. The second respondent is the company's CFO (Chief Financial Officer) and is closely involved with the implementation of Business Intelligence throughout the company. After discussing all phases in our Social

Network Intelligence Process (SNIP) Method, the respondents indicated that every step was clear to them. The respondents gave no reason to alter or add steps in the method and considered it to be complete. When relating the method to their own approach the respondents discovered useful additional steps. The most valuable improvement is the tree structure, as shown in Figure 3, which definitely creates a clear insight and overview between the different management layers and their specific needs. The main improvement can be found in the well-arranged connections that are made visible at first glance within the tree structure. In order to validate the tree structure in detail, an in-depth evaluation was performed to analyse the overlap between the practical knowledge of the Dutch social network site and the theoretical findings derived from the first part of our research. This validation was performed using several unstructured interviews, two structured interviews and a number of supporting documents from the Dutch social network site. The overlap is shown in light grey. The dark grey fields are specific additions derived from the validation at the Dutch social network site. The white fields are possible improvement points for the Dutch social network site. Next to this overlap proposed weights are added to serve as a starting point that can be related to specific targets. These weight measures need to be improved constantly in order to accurately gauge them.

Table 2: Overview of consulted Dutch experts on social network sites.

Expert Description

1	Consultant at an international IT company and specialized in crowd sourcing.
2	Management consultant and did research on monetizing websites.
3	Specialist in Web 2.0 and social computing business models.
4	Specialist in Customer Relationship Management and Web 2.0.
5	Expert in information retrieval from an academic perspective.

Table 3: Importance of each social network site-specific critical success factor per expert.

SNS Factor	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5
Affordance	Light Gray	Medium Gray	Light Gray	Medium Gray	Dark Gray
Collaboration	Medium Gray	Dark Gray	Dark Gray	Dark Gray	Black
Content	Dark Gray	Dark Gray	Dark Gray	Black	Light Gray
Network effect	Medium Gray	Medium Gray	Dark Gray	Medium Gray	Dark Gray
Revenue model	Dark Gray	Dark Gray	Dark Gray	Medium Gray	Dark Gray
Trustworthiness	Dark Gray	Medium Gray	Dark Gray	Medium Gray	Dark Gray
User experience	Dark Gray	Medium Gray	Dark Gray	Medium Gray	Dark Gray

Unimportant factor  Important factor

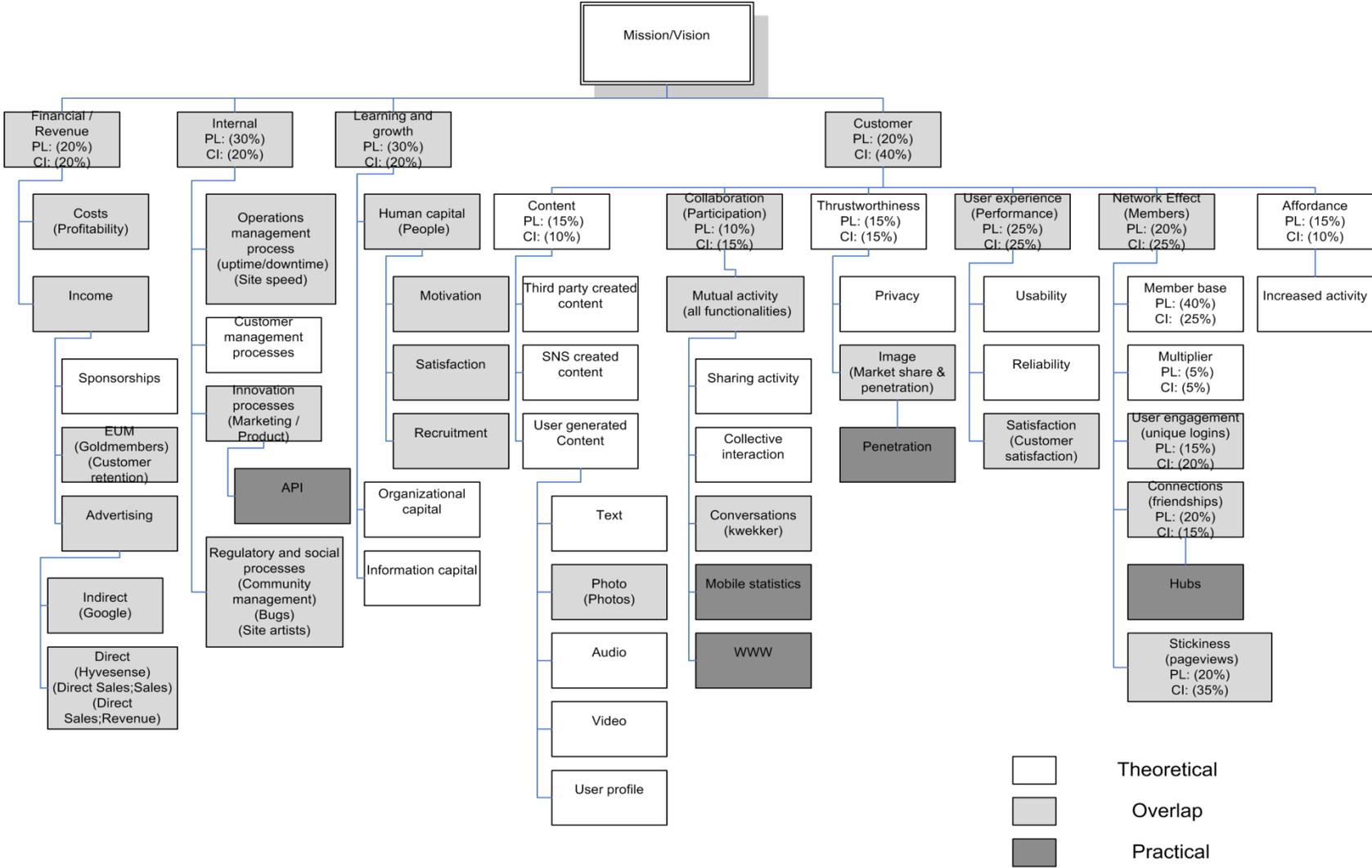


Figure 3: The validated tree structure at the leading Dutch social network site.

7. Conclusions and further research

This paper started with the observation that social network sites have been growing extraordinarily during the last years and also the user generated content which is stored within the databases of social network sites. Nevertheless they are not using all the information that can be extracted from the available data because a proper overview and in-depth insight are missing. The proposed Social Network Intelligence Process (SNIP) Method gives insight in the way a social network site can walk through “an organized and systematic process by which organizations acquires, analyzes and disseminates information from both external and internal sources significant for their business activities” (Pirttimäki & Hannula, 2004). According to this definition, the proposed Business Intelligence method covers all information gathering and processing activities in an organization that exploits a social network site.

The SNIP Method has proven to be very useful for depicting the right information needs and does this in a proper way by adding insight and overview with the proposed deliverables, in the case of the leading Dutch social network site. However, one shortcoming or limitation in the results is the relatively low number of conducted expert interviews with respect to the validation of both the social network site-specific critical success factors and the SNIP Method artifact. Moreover, the limited evaluation through a single case study does not allow for more generalized conclusions. Therefore, more relevant results could be obtained by expanding the amount of case studies, resulting in a deepened analysis. This still may be very difficult, because the subject is so new and dynamic, and there is relatively limited knowledge about it. Finally, getting SNS companies to cooperate is obviously also quite a challenge, since the SNIP Method implicitly requires an in-depth understanding behind the curtains.

Some other suggestions to follow up this research include a transformation into a quantitative, more statistical analysis in order to validate the situational and organizational aspects through, for example, a survey among members of social network sites. Also, further research into the business models and monetization opportunities of the social network sites might turn out fruitful. And last but not least, results coming forth from the Business Intelligence tools and their dashboards could very well help focus further research on the use of social networks and, more specifically, in the behavior of the users on these kind of websites.

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