

Research article

The adequation between the available resources and the real needs of a strategic scanning project

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Article history:

Received 5 August 2019; Received in revised form 16 September 2019.

Accepted 20 September 2019; Available online 21 September 2019.

Abstract

This paper proposes to define the resources used in the implementation of a strategic scanning system in Tunisian industrial companies. It is based on an in-depth study of the resources allocated for the operation of the strategic scanning system through research based on an inductive approach that lasted several months. We have been able to identify an inadequacy between the available resources and the real needs, which can lead to the dysfunction and even to the abandonment of the anticipatory strategic scanning.

Key words: Real needs, Resources, Strategic scanning.

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1. Introduction

In Tunisia, only fifteen industrial companies have benefited from training on the implementation of Strategic scanning within the framework of the Program for Supporting Competitiveness of Enterprises and Facilitating Access to the Market (PCAM).

As an information system, the Strategic scanning system requires human resources that intervene with material and financial resources to carry out the Strategic scanning.

For our case study, the majority of companies have failed to achieve the desired objective following the establishment of a Strategic scanning device. It is therefore interesting to consider: the degree of adequacy between the resources allocated for the implementation of a Strategic scanning system and the real needs of the Strategic scanning cells?

As several studies and researches, we are interested in our work the combination of two scientific fields namely project management and Strategic scanning. Our research aims mainly to understand the resources allocated in the process of Strategic scanning within Tunisian industrial companies. To do so, we adopted a qualitative methodology to study these resources in depth.

We are only interested in what the actor “does” (Orlikowski, 2002) and our approach consists in studying the monitoring mechanisms of industrial companies. This leads us directly to examine the behavior, the functioning and the exchange of

information within each device. The desire to understand the dynamics requires the investigations (Hlady Rispal, 2009) which give access to such a large volume of information.

At this level, we explored several methods to gather information. With the analysis of the data specific to each company (report, newsletter...), we conducted semi-structured interviews with various managers.

This allowed us to carry out 8 semi-structured interviews on the premises of each company with an average duration of one and a half hours. The transition to maintenance is done in two steps: first the decision of appointment that will either by phone if we have the coordinates of the company either face to face.

Once the appointment is set, we move on to maintenance. Usually, the interviews are subjected to an audio recording.

Our sample is comprised of executives who have received training on the implementation of Strategic scanning in the PCAM program. The target companies are fifteen in number and they are spread over the Tunisian territory.

We conducted interviews with seven companies with eight Strategic scanning cell managers, including two interviewees belonging to the same cell and we note that we could not reach the other companies (8 companies) for an interview. Generally, the results of the analysis of the data are of great importance, thus presenting greater deficiencies

between what was anticipated upstream of the Strategic scanning process and the real needs of the companies.

2. The formalization of the strategic scanning system and organizational culture: a useful action and necessary at the time

2.1. Formalization of the strategic scanning system

The work of Gilad and Gilad, (1986) has shown that the authors argue for a certain degree of formalization of strategic scanning process in general and of the circulation of information in particular. There is even a link between the degree of formality of the system and the involvement of the members. Indeed, more than the standby process is formalized more members are involved and vice versa. The survey of industrial enterprises showed that six of the respondents said that the strategic scanning system is often informal (see table below).

Table 1: Strategic scanning system type

	CB : ro formel ▼	CC : ro informel ▼
1 : Cas\CAS MPC PROKIM	non	oui
2 : Cas\CAS RECONNEU	non	oui
3 : Cas\CAS SIA	oui	non
4 : Cas\CAS SOGIP	non	oui
5 : Cas\CAS SOMEF	non	oui
6 : Cas\CAS STIFEN 1	non	oui
7 : Cas\CAS STIFEN 2	non	oui
8 : Cas\CAS TMM	oui	non

Source: Treatment of qualitative data by NVIVO 8 software: S. Ben Slimene.

Since it is offered free of charge as part of the training in the PCAM program, the system is informal and does not receive any follow-up or control. The fact of not doing is then an action that is not sanctioned. As a result, the Strategic scanning system is transverse to the organization and not rigid. There is therefore a lack of a centralized evaluation function and validation of information. In this context, we retain this verbatim:

We have an informal Strategic scanning system so quality may take precedence over quantity in the absence of hierarchical pressures.

In the light of the preliminary ideas and within the framework of this informal system, we note that the good functioning of the Strategic scanning cell is only due to the willingness of the employee to do research that is not structured random. Another interviewee said:

Our Strategic scanning system is informal and also the system is down

The execution of the Strategic scanning by members of the cell, so that it is informal and non-structural, can be explained by the gratuity of that

system in terms of implementation, maintenance, and staff training. It is characterized by the redundant sources and information. Another interviewee suggested that:

There is no pressure from management which means the Strategic scanning is not obligatory.

This leads directly to the conclusion that there is no strategic vision and systematic identification of needs and priorities. This is why for some manager; the strategic scanning is "a dead letter in the spirit" in the way of doing things. They incorporated the elements they followed during the training and the strategic scanning cell is not as active as they want.

In another measure, we can say that there are managers who are aware of the importance of formalizing their strategic scanning system. They estimated replace a system or a proactive strategic scanning process.

It is true we set up all the necessary documentation, procedures, instructions... but we have not implemented the system itself

Examination of the survey data showed that only two of respondents indicated that their strategic scanning system is 'formal'. The narrative of some enterprise seems often beneficial to the enrichment of this reflection.

32 *Today we are in the formal because it is not free. There are certain things that are subsidized by PCAM and the rest by SIA. Strategic scanning is mandatory and there is a strategic vision and a systematic determination of needs and priorities. We have a formal strategic scanning system. All members are adhered in the said process and we do follow-up. The strategic scanning is mandatory.*

2.2. Organizational culture

To optimize a company's strategic scanning efforts, Dishman and Calof (2008) strongly recommend the presence of an organizational culture oriented towards the competitive environment and a culture of competitiveness. Indeed, for Pole, Madsen and Dishman (2000), "this culture promotes organizational learning, which means that the company increases its chances of increasing its knowledge through the benefits of its strategic scanning process".

Our interviewees all agreed on the important role of 'organizational culture' in the effectiveness of setting up the strategic scanning process with the exception of one interviewee who stated that (Table 2):

Within our company there is not a culture turned towards the anticipative strategic scanning that is why the system of strategic scanning is out of order

Table 2: Organizational culture open to the outside

	CA : ro culture...
1 : Cas\CAS MPC PROKIM	oui
2 : Cas\CAS RECOPTNEU	oui
3 : Cas\CAS SIA	oui
4 : Cas\CAS SOGIP	non
5 : Cas\CAS SOMEF	oui
6 : Cas\CAS STIFEN 1	oui
7 : Cas\CAS STIFEN 2	oui
8 : Cas\CAS TMM	oui

Source: Processing of qualitative data by NVIVO software: S. Ben Slimene.

On the other hand, our interviewees confessed that:

We are open to the outside, the presence of an organizational culture oriented towards the competitive environment and a competitive culture is mandatory in order to optimize strategic scanning efforts.

The results of the strategic scanning are not overnight. For a short period it is likely to have no result, or the results may be a detection of a competitor. It is not a money entry. For the interviewees, the organizational culture must be oriented towards a competitive environment as well as towards a compulsory competitive culture in order to optimize the strategic scanning efforts. This culture promotes organizational learning and increases the company's chances of increasing its knowledge through the impact of its strategic scanning process.

The interviews showed that companies adopt a culture open to their environment. Indeed, members affirm that they have the culture to participate in fairs every year. Contact with the outside is important and they do not put barriers to accept such a supplier or customer. We note that some interviewees do not have the concept of "as long as I earn money I am quiet" or "why I change winning team".

We are very oriented towards this kind of action fair, conferences ... but a little less structured. It is a culture that encourages groups learning and aims to increase the chances of business knowledge.

Among the objectives outlined in our survey is the fact to approve new sources, secure purchases and have other opportunities and other markets. All company departments are also affected by the same missions. So, among other things, they must be very open and present in the very scalable markets.

3. The informational resources

As El Sawy (1985) who states that "Managers and leaders to learn about their external environment use oral / informal sources that are much used as sources written / formal", all interviewees said they relied heavily on 'oral sources' (Table 3).

Table 3: types of informational resources

	C : ri technolo...	D : ri relationn...	E : ri orale	F : ri externe
1 : Cas\CAS MPC PROKIM	oui	oui	oui	non
2 : Cas\CAS RECOPTNEU	oui	oui	oui	oui
3 : Cas\CAS SIA	oui	oui	oui	oui
4 : Cas\CAS SOGIP	oui	oui	oui	oui
5 : Cas\CAS SOMEF	oui	oui	oui	oui
6 : Cas\CAS STIFEN 1	oui	oui	oui	oui
7 : Cas\CAS STIFEN 2	non	non	oui	oui
8 : Cas\CAS TMM	oui	non	oui	oui

Source: Treatment of qualitative data by NVIVO 8 software: S. Ben Slimene.

The transcript of the interviewees is very interesting. It is here that a manager of a company told us that he has heard of such information is not disseminated. It is not concrete information but its transmission is usually in verbal way. He admitted that there are types of information that cannot be found in the press. Taking the example of staff recruitment, which generally does not appear in the media. This information is distributed by word of mouth. Indeed, the information from the field can only be face to face.

Information flows from word of mouth. There are reports that are drafted and communicated. However we try to record it in black and white and communicate it to the interested parties.

The interviews revealed that at the commercial level, companies receive information about the local market orally. Some managers have already pointed out that at the local market the problem of collecting information exists. It is thus difficult to find published formal information. For this reason, they relied on information from word of mouth.

In our process, the sales persons who were traveling had a visit card. They visit the customer or the supplier and note what they saw, what they talked about. Thereafter, this form will be filed and this is what happens at the commercial level.

The majority of interviewees (seven) said that the information resources are mainly 'external'. Just like Ghoshal's work. (1988) who asserted that "managers and leaders to learn about their external environment use external sources insofar as the object of the strategic scanning is precisely to learn about the external environment. Indeed, our interviewees stated that the information is generally external. It comes mainly from seminars that bring together a number of companies in exchange, as well as fairs... Also, the development of relations with certain structures, which promotes partnerships, can present a large source. All this without forgetting the conferences where the professionals meet.

In another measure, six of interviewees focused on the importance of creating relationships. This was discussed with Aguilar, (1967); Keegan, (1974); Nishi, Schoderbek and Schoderbek (1982); El Sawy, (1985).

The latter have shown that managers and leaders to learn about their external environment use personal / field sources that are much more solicited and used than impersonal / documentary sources. By referring to these ideas and analyzing the survey data, we were able to identify several ideas through the stories of the interviewees. First, we can say that information is scarce and incomplete and especially in the technological scanning, ingredients and supplier. They cannot be found and especially with a new ingredient.

You have to look for the supplier who makes the new ingredients, you have to call him for information on this type of ingredient, and you take the datasheet to inquire about the scope.

Then we were able to emphasize the importance of the novelties. The most important information, 80%, comes from suppliers (meetings, mail...) or the representatives / distributors of these suppliers.

You look right and left to see what's new.

In turn, the results of our investigation are rich and of great importance. The survey made it possible to identify the different sources of information presented above. But that's not all. Indeed, all interviewees stated that they used 'technological sources'.

When you arrived you found me doing some research. I am looking for certain information in relation to a particular subject. It is here that it seems interesting to me to say that you will have the information that by RSS feed.

4. Human resources: training problems and the level of involvement

The company's members do not necessarily have innate abilities to track own the weak signals. In this same vein, Thietart (1991, p. 99) argued that training in environmental analysis is "paramount so that everyone to distinguish between banal and capital information. It is therefore necessary to develop an awakening state which must make it possible to detect and select the relevant information when the latter presents itself".

4.1. The training problem

Of course, our interviewees encountered problems related to training that we have tried to reveal. The 'lack of communication' appears as a major obstacle in the strategic scanning cells. Some have asserted that in their organization everyone do the strategic scanning according to their own duty. In other words, each member does the strategic scanning in an individual way. This may explain the lack of cooperation between the members and the strategic scanning cell. This lack of communication leads to the emergence of a 'problem of creating meaning' and 'animation' as well as 'sharing information'.

We encounter problems related to training because it is a matter of offering different training depending on whether we train people to collect, analyze or animate the monitoring process.

With the lack of communication, there is the 'degree of capitalization of information'. A well-defined portion of the interviewees argued that, apart from some people who are not used to formalizing, writing... there is a problem of capitalizing this information. They showed us this combination through a specific example.

Taking the example of a salesperson who is in frequent contact with customers and suppliers, he may not be accustomed to writing accurate reports after visits ... it's here that we have to concentrate on Work because there is a lot of information in the visits regardless of suppliers or customers. This information can be exploited if you have the eye and presence of the mind. After what is interesting is the formalization of this information. That is where I can tell you that there is a capitalization problem.

In another measure, four interviewees argued that there are 'skills' and analytical skills in their organization, and there is also 'collective intelligence'. The stories are rich and we retain the following:

Collective intelligence within the company is very beautiful. I think it's not a bad thing to have good communication. In all that is happening today, I understand new things despite the fact that communications are not well perceived.

Another interviewee said,

External laboratories, whether in Tunisia or elsewhere, can be used to characterize this product. We precisely have the ability from this characterization to reproduce and make a similar product.

Similarly, a small proportion of respondents (two) said that their organization, the animator has a capacity for 'mastering of the subject'.

The animator must have mastery of the topic above all and have direct responsibilities in the company. He has a responsibility for the goals he wants to achieve. Thereafter, we add the tools of animation: an animator is someone who communicates well, someone who is clear in his ideas, in his communications, in his discussions. It is someone who ensures a certain rigor and that must be respected by the members and must be nice.

In another way, two interviewees spoke of 'recognition'. In fact, they have put indicators of strategic scanning that allow them to guarantee the durability of their strategic scanning system. All this so that the strategic scanning will be not diluted or

forgotten. The General Direction has set monthly and weekly monitoring indicators. These are linked to the person performance contract. If the member does not meet the objectives, he will be penalized in relation to his annual bonus. If a member fails to fulfill these indicators, he must put behind an action plan to describe the actions that should be implemented to absorb the delay. And this action plan will be followed, of course, as part of the monthly indicators.

For the commercial part we obliged the commercial member to publish a bulletin of monitoring every week when it collects five major information, it can be more but at least five information. For the purchase part, it is necessary to have a monthly monitoring where it is necessary to put at least three important information in relation to the axes of research. First of all it is very visible at the level of the base and of course the indicators are monitored within the framework of a scoreboard of the company since we have other indicators among other production, commercial, turnover etc. These indicators are therefore reviewed once a month within the framework of the management committee. They are called "strategic scanning indicators." Of course, we can do all this within our quality management process and we can do the indicators so that we will see them monthly since we have a monthly review of all the indicators.

4.2. The level of involmment

The work of Lesca. N, Caron-Fasan M.L (2005) emphasized the importance of involvement in the strategic scanning cell. It is here that five of the respondents stated that the general framework is qualified by "member involvement".

In MPC PROKIM, we are all involved in the search of information. Look, participative management is practiced almost a much generalized way. We keep listening through some instruments. Generally, it must be said that Involvement is mandatory. We connect monitoring process for internal business process described by a certain procedure.

The rest of the interviewees, three, argued that in their companies there is 'lack of involvement'. Indeed, their companies were not able to continue in the strategic scanning because they are not involved, they have not followed the steps of the strategic scanning process and they have not even practiced them. This is mainly due to a lack of involvement on the part of the organization and the overload of work.

5. Technological resources

Just like Lesca. and Caron-Fasan (2005), all the interviewees affirmed that the strategic scanning requires a 'technological support' otherwise it remains theoretical concept. Indeed, our survey showed that each company has set up a social networking system inter-company YAMMER, Outlook, RSS, Rssowl,

Nuxeo, Wysigot... These are software that were provided free of charge during the PCAM program. For this reason, all companies that have taken the standby training have the same software.

Indeed, YAMMER and Outlook are like the social network Facebook but they are inter-company. They provide all new regulatory information in the vendor market. In fact, there are interactions, comments, likes ... All this is done in collaboration with the director of the company. The latter requests information and verification of the source ... For Rssowl software, it is software that collects RSS feeds. Indeed, members are used to connect to this site to save RSS feeds on this software. Every time there is new information the Rssowl makes an alert. The stories are numerous and we retain the most important to know:

We have YAMMER, Rssowl. These are basic tools. The tools depend on your stage. For our primary stage, these two tools are largely sufficient

Or,

Compared to the strategic scanning, we made a subscription to the RSS feed. We made a subscription to everything that is called for tender.

In addition,

We have Nuxeo, RSS feeds, Wysigot and Rssowl. We also have an intra network like everyone else's Outlook.... So we exchange a lot and we work a lot on that. Really it is an indispensable tool. When there is a document that interests us, we exchange it through our internal network. The people in the operational field continue, of course, as we said, to participate in the fairs and to listen to the news on the net.

Finally, it must be said that the affirmations are valuable. They show the importance of technological resources in the operation of the strategic scanning cell. In the event of a breakdown, members can stop the strategic scanning process like what happened with a few companies that could not intervene to unblock this malfunction (Table 4).

Table4: Technology resources

	CD : rt besoin ... ▾	CE : rt support... ▾
1 : Cas\CAS MPC PROKIM	non	oui
2 : Cas\CAS RECOPNEU	non	oui
3 : Cas\CAS SIA	non	oui
4 : Cas\CAS SOGIP	non	oui
5 : Cas\CAS SOMEF	oui	oui
6 : Cas\CAS STIFEN 1	non	oui
7 : Cas\CAS STIFEN 2	non	oui
8 : Cas\CAS TMM	non	oui

Source: Treatment of qualitative data by NVIVO 8 software: S. Ben Slimene.

We note here that almost all the companies that have received this training have the same technological supports, namely Nuxeo, RSS, Wysigot, Rssowl and Yammer, which are set up during the PCAM program.

Only one interviewee 'SOMEF' said that his company 'needs other tools' even if it has a device that has been set up. He puts forward the idea that the need for tools can emerge, while the strategic scanning device is already well engaged. The tool is then necessary and indispensable for the operation of the cell.

6. Conclusion

The survey conducted among the Tunisian industrial companies allowed us to say that the majority of strategic scanning systems are informal. This explains, in a way, the absence of the company's involvement in this process despite the presence of an outward-oriented culture.

As for the information resources, the information collected comes from the technologies set up as part of the strategic scanning process. These informational resources are generally oral and external sources. They are essentially based on the development of relational networks.

Concerning human resources, the interviewees put forward some problems encountered, namely the lack of communication, the degree of capitalization of information and the lack of involvement. On the other hand, others have stated that they have skills, that collective intelligence is very present and that there is a mastery of the subject. It is for this reason that in some companies there is 'recognition' which can explain the involvement of the members.

Finally, for the technological resources, all the interviewees affirmed that the strategic scanning requires technological support. We note here that almost all the companies that have received this training have the same technological supports that are put in place during the PCAM program namely Nuxeo, RSS, Wysigot and Rssowl, Yammer. Some companies have expressed their willingness to invest in other technologies.

Generally all companies surveyed have expressed their need to have a well-equipped strategic scanning system and that can be the company's tool to achieve progress and follow the path of technological change. It is therefore interesting to know the adequacy between available resources and actual needs.

References

- Aguilar F.J. 1967. Scanning the Business Environment, Macmillan.
 El Sawy O.A. 1985. Personal Information Systems for Strategic scanning in Turbulent Environments: Can CEO Go on Line? MIS Quarterly, vol. 9, No. 1, pp. 53-60.
 Ghoshal S. 1988. Environmental Scanning in Korean Firms: Organizational Isomorphism in Practice. Journal of International Business Studies, Vol. 19, No. 1, pp. 69-86.
 Gilad T., Gilad B. 1986. "Business Intelligence: The Quiet Revolution", Sloan Management Review, Vol. 27, No. 4, 1986, p.53-61
 Keegan, 1974; Keegan W.J. 1974. Multinational Scanning: A Study of the Information Sources Utilized by Headquarters Executives

- in Multinational Companies. Administrative Science Quarterly, Vol. 19, No. 3, pp. 411-421.
 Lesca.N, Caron-Fasan M.L. 2005. Eve seen as a cybernetic system. Finance Control Strategy, Vol 8, No. 4? December 2005, pp. 93-120
 Nishi K., Schoderbek C. and Schoderbek P.P. 1982. Scanning the Organizational Environment: Some Empirical Results. Human Systems Management, Vol. 3, No. 4, pp. 233-245.
 Thietart, R-A. 1991. The Business Strategy. Paris: McGraw-Hill, 247 p.