EXPERIMENTAL IMPLEMENTATION OF A NEW CREATIVE METHOD TO SUPPORT FUTUROLOGY BY SMALL BUSINESSES IN A STRATEGIC MANAGEMENT PERSPECTIVE

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Small businesses, like large corporations, are required to demonstrate creativity and innovation if they are to survive and flourish in a competitive and increasingly demanding world. Among other things, they must regularly and systematically explore major trends in their environment in order to detect possible business opportunities. The academic literature stresses the importance of this task but despite this, few researchers have, up to now, shown any interest in developing and assessing methods and tools to support businesses in their futurology efforts. This study is intended to correct this deficiency, at least partially; it defines a new method designed to assist small businesses in carrying out futurology in a strategic management perspective, and describes an experimental implementation of the method.

The increasingly fierce competition faced by small businesses following the abolition of trade barriers, and the pace of change in general, leaves them with little choice: on-going creativity and innovation have been imposed as major issues by the business context. Small businesses must innovate in all areas, not only in connection with products and services, but also as regards their organizational practices. Faced with this situation, a business wishing to exploit the creativity generated by the intelligence of its workers must itself act creatively. However, a sizeable gap still exists between the desire to stimulate creativity within a business and the actual

action taken (Carrier, 1998). The academic world continues to produce quantities of written prescriptions describing the urgent need to develop more creative approaches, but the tools needed to implement the policy remain, for the most part, undeveloped. The essential focus of this research is on instrumentality.

This paper describes the process and results of an experiment focusing on a new method to help small businesses examine their environment in order to detect opportunities. The new method, based on the preparation of what could be called a "futurology map", involves the use of a structured creative approach to explore the major trends observed in the environment in which the business operates, in order to determine the opportunities that may arise. It will be of interest to all researchers, consultants and owner-managers of small businesses who want to promote creativity, in particular in a strategic context.

The first part of the paper introduces the main elements of the situation and the conceptual framework for the research. The second part focuses on the operational framework and provides a more detailed look at the method used, including its objectives and the various existing techniques on which it is based. The experiment, as actually carried out on a group of subjects, is also described and the results are analysed. To conclude, the paper presents a discussion of the results and the new directions for research they highlight.

BACKGROUND AND CONCEPTUAL FRAMEWORK

The Importance of Creativity in the Organizational Context

It is not surprising that, in recent years, the flow of papers on organizational creativity has increased, as more and more players in the academic field have focused on this area. A review of the so-called scientific literature shows that two main problems have, up to now, attracted the interest of researchers. A first series of papers highlighted personal and cognitive characteristics, and the types of motivation associated with creativity in a professional context. Kirton (1994), for example, identified two different personal styles, namely the *innovator*, who tends to develop from what already exists, and the *inventor*, who tends to apply creativity in order to develop new solutions to problems. In the same line of thought, Davis (1989) proposed an inventory of personal characteristics of creative individuals, together with tools to help identify them.

As aptly pointed out by Ford (1995), several authors of such papers tend to ignore or underestimate the importance of the context in which individuals operate in connection with the emergence or non-emergence of their creativity. A second series of papers shifts the spotlight to the context and the managerial factors likely to favour the emergence of creativity among individuals and work teams. In this case, creativity is considered as a process and a social product that must be examined in a systemic, interactionist light. Authors in this series include Amabile (1997, 1998), who presents organizational creativity as a result of the individual's motivation and expertise and the context in which he or she evolves; Csikszentmihalyi (1997), who shows that creativity is only possibly in a system that includes the individual, the domain and the situation; Woodman, Sawyer et Griffin (1992), who emphasize the need to address creativity from an interactionist standpoint, combining the characteristics of the individual, the group of which the individual is a part, and the organization; and lastly Cummings et Oldham (1997), who defend the idea of selecting individuals with an *innovator*-type profile first, and then defining the work environment characteristics most likely to benefit them.

With regard to the development of techniques and methods to enhance creativity, it becomes clear that most have been suggested or produced by professionals working in the field rather than by researchers. University researchers often tend to keep their distance from concrete realities, although this attitude has been observed to change in the field of management in recent years, where increasing reference is made to the importance of socially relevant research. As would be expected, the authors of all the creativity tools claim that their methods will be effective in generating new ideas, but their claims are seldom based on strict empirical work. One of the few techniques actually to have been tested empirically is *brainstorming*, probably because it the best-known and most widely-used. However, several researchers, including Lamm and Trommsdorf (1973), Gryskiewiecz (1988) and Nemeth (1997), have considerably tempered the claims of the inventors, describing the results achieved as generally disappointing.

Hauschildt (1996) stresses that even the number, classification and names of the techniques remain confusing, citing as an example the fact that Geshka and Yildiz (1990) identified 22 creativity techniques, Schliksupp (1989) 44 and Gryskiewick (1988) around a hundred. In addition, most of the creativity techniques proposed for the management sector were designed for other purposes, and their wholesale transfer to the management field is not necessarily a guarantee of success (Carrier, 1997). However, an increasing number of researchers have turned their attention

to the development of creativity techniques specifically applicable **and** to the organizational context. The works of Isaksen and Treffinger (1985), Parnes (1992), Rickards (1990), Rickards and Puccio (1991), who propose techniques and tools for managers to help them make decisions more creatively, are typical of this trend.

Despite the undisputed usefulness of the new methods, the need to address other management problems using creativity techniques remains as important as ever. The use of futurology in connection with strategic planning is certainly one of the most promising fields. In addition, as illustrated by the method described below, it is often necessary to combine several different techniques in the same approach to obtain satisfactory results.

The Importance of Futurology in a Strategic Context

Existing papers on futurology have, with varying explicitness, already proposed this combination. As a general rule, a futurology approach combines essentially analytical methods with essentially heuristic methods; it is generally admitted that the former methods are useful in structuring problems but tend to benefit from the intuition and the questioning approach typical of entrepreneurial creativity that can only be encouraged by the mobilization of imagination, intuition, judgment and experience (Desreumaux, 1993). In the final analysis, support must be provided for the actions taken to bring about a desired future state. This falls within the realm of strategy which, according to Ackoff (1973), is planned by conceiving a future result and mobilizing the means required to achieve that result. The energy deployed by employees is, obviously, one of the means involved, and employees must be taken into account from the initial formulation of the strategy in order to increase their commitment when the time comes to implement and bring it to fruition. One of the goals of this approach is to control energy (control of the business in the broadest sense) in order to manage strategy better (strategic management).

Besides the distinction to be made between deliberate and emergent strategy, it is also possible to envisage the early involvement of employees by the use of appropriate techniques well before a strategy is implemented, or even formulated. For this, techniques designed to enable employees to anticipate possible developments likely to have an impact in the future of the business must be used. For example, the ability of employees to anticipate what might happen in the sector of activity concerned, and on a broader front anything liable to influence the trajectory of the business, must be recognized. The trends to be discovered are, by their very nature,

multi-faceted, which is where futurology can be used, beforehand, to support the strategy. If futurology is a prior requirement for strategy, it also overlaps with it to a certain extent. The main difference between the two is that where futurology is designed first and foremost to discover what might happen in the future, strategy is concerned with the concrete solutions to be considered for the business, and the means of attaining them.

In classical theory, futurology activities are divided into two groups. The first involves the preparation of scenarios for future development, known as exploratory scenarios. This is a conjectural approach, applied to existing situations to understand possible future states. The second group is more related to anticipation, and consists in imagining a possible desirable future state and examining to what extent it can be attained[1]. Both exploration and anticipation, though, focus on the definition of imaginable future situations, that the individuals concerned will then attempt to realize in order to better control how they themselves develop. For this purpose, individuals will tend to establish links between certain elements that they associate, more or less explicitly, with the achievement of the hoped-for future situation. As Baumard (1996) points out, anticipatory intelligence is based on the idea of links, which can be established for the present or projected into the future; forecasting errors are most likely to result from a projection that is flawed because of the omission of certain possible links.

The use of futurology tools by managers requires that these links be identified. For example, after a stage in which experts in the field are asked about the possible and probable evolution of a given environmental context, the statements made will become the characteristic variables of the system under examination. The system must first be subjected to a structural analysis (Ancelin, 1983; see also Roubelat, 1993) that is then completed by a search for the relations between each variable, performed by analysts. These relations can be of all types, and the process is qualitative. The resulting matrix can be used in conjunction with algorithms derived from graph theory in order to expose all the dependent variables, explanatory variables, relay variables and independent variables. The whole process resembles the formal analysis of a cognitive map or strategic map. In this type of mapping, links remain a highly significant idea. Whether the (idiosyncratic or collective) representation takes the form of a matrix with key variables or a map presenting concepts and the links through which they influence each other, graph theory and the principles of matrix multiplication can be used in analysis.

One major difficulty remains to be negotiated, since the futurology approaches generally presented are costly in terms of both time and money. Few small businesses can afford to initiate a futurological examination based on the related techniques (such as Delphi). This observation in fact constitutes a challenge: that of proposing methods that will be both relevant and cost-effective for small businesses. Obviously, such methods will only constitute the basis for the effective formulation of a strategy. Simply stating that it is important to create and innovate is easy enough, but defining how a small business should go about it is another thing altogether. It should be pointed out that the possible involvement of employees in the implementation of the strategy will tend to be more successful when based on a collectively designed construct. This leads in turn to the idea that, through futurology, the creative energy of employees must be harnessed by proposing easily assimilated methods. The operational framework presented here describes how this can be achieved.

OPERATIONAL FRAMEWORK

Origin of the Proposed Method

It is important to state at the outset that the development of this method was partly inspired by the experiment suggested by Verstraete (1998) in the first instance, and then put into practice by Lecoeuvre and Verstraete (1998), who used a nominal group and cognitive mapping simultaneously to prompt a change in attitudes in the organizational context. However, our method diverges from this model in the sense that both its objectives and the type of induced analysis used are clearly different. In fact, this method integrates three techniques rather than two, as described in the following paragraphs.

The first technique is the nominal group technique, which is an inductive approach used in particular in problem solving and training needs analysis. A discussion leader using the technique begins by asking an initial question (such as: what on-going training themes should be given priority within our group for the coming year?). Each participant must first generate, in writing and without consultation, a personal list of priorities. Then, the discussion leader goes round the table several times, inviting the participants to state one of their priorities, until no more new ideas are forthcoming. As pointed out by Muchielli (1996), it is important for all participants to state one idea in turn, since the group must not be left with the impression that all the ideas are coming from the same person, or

that most of the ideas are stated by the first participants. All the ideas are noted and the participants are then asked to vote on the suggestions they find the most relevant.

Our approach diverges from the nominal group technique from the point where the participants are asked to vote on the priority to be given to the ideas suggested. At this stage in our approach we use a technique suggested by Mattimore (1994), the *"voting dots"* technique, which constitutes the second ingredient in our process. Mattimore recommends use of this technique in the stage of brainstorming sessions when the most promising ideas are selected. Each participant is given a set of small, coloured, self-adhesive dots on which a figure from 1 to 5 appears. All the ideas are posted on the wall, and the participants stick their dots against what they consider to be the most promising ideas, with the figure 5 going to the most promising idea. This method is interesting because it requires each participant to examine each idea closely.

The third technique on which our approach is based is cognitive mapping, although we use it in a way that diverges from the method most commonly used by other researchers in the field. Traditionally, a cognitive map is a diagram showing a semantic network made up of concepts (such as variables) and links, generally said to be causal in nature, between the concepts. In our approach, the ideas expressed are represented in graphic form, as described below, and are also made up of concepts and links. However, the concepts are not all joined by strictly "causal" links, the only kind of link generally considered valid in the cognitive mapping work done so far in the management field, even if the concept of causality remains highly ambiguous (Cossette and Audet, 1992). Perhaps, in our research as in the research carried out by Eden (1988), each concept should be considered more or less broadly as an "explanation" or "consequence" of the concept that, respectively, follows or precedes it.

In addition, although some work in cognitive mapping (see, for instance, Bougon, Weick and Binkhorst, 1977) allows the establishment of "loops", in other words circular relationships between different variables, our approach, which is closer to the work of Colin Eden on strategic group decision-making (see, in particular, Eden, 1992), was not designed to highlight the possible systemic nature of the thought processes of the subjects. Rather, our goal was to bring a group of individuals, after discussions and the use of various techniques, to specify "trends" and the concrete "changes" to which these trends were most likely to lead. Lastly, it is important to note that cognitive mapping is a tool that assists communication, given that the visualization of a figure facilitates the exploration, awareness and transformation or confirmation of ideas that

have been proposed and that are shared to varying degrees (Cossette, 1994). It also offers possibilities for specific analysis (in particular, using the Decision Explorer software application developed by Eden and his team). However, in our research the first use of the technique was the most relevant; the "futurology map" we developed was not suitable for most the analyses carried out using Decision Explorer.

Description of the Method Used

The first stage was to set up a situational context. Since the experiment was conducted with a group of students enrolled in a Master's level management course given by the first author, it was essential to provide context. We worked on the case of a small business (a fictional business, of course, but a type that exists in its hundreds) providing short-term training and skills upgrading services for businesses. A short text describing the activities of the business and its products and services was handed out at the beginning of the session. The text was read out loud and a discussion followed to ensure that everyone had the same perception of the realities of the business. This stage lasted about ten minutes.

The second stage involved determining the major trends considered to be present in the business's environment and likely to influence its trajectory. More specifically, using the nominal group technique, the participants were asked to respond to the following: "You must identify five trends that have been observed in our environment (and that are likely to continue for the next ten years) and that might have an impact on the direction in which we choose to direct the business". To illustrate what was meant by the term "trend", three examples were given to the participants, carefully selected to provide examples of trends that clearly would not have a major impact on our business. These three examples were: • people are keeping an increasing number of pets at home; • people are living to a greater age; • an increasing number of safety requirements are being introduced into sports activities (such as the wearing of a crash helmet for cyclists).

Next, while some relaxing music was played, the participants were given 20 minutes to identify trends, individually and in silence, and to write them on the sheet of cardboard provided for the purpose. (The sheets were collected at the end of the second stage). Following this stage of individual reflection, the participants were asked to state their trends, one by one, as the leader went round the table several times until all the ideas were exhausted. All the trends identified were marked on large sheets of paper that were then posted on the wall. During the process, each

participant was given five self-adhesive dots, numbered from 1 to 5. The participants were asked to examine all the trends posted and to use their stickers to vote for the trends that, because of their potential influence on the business, should be given priority. The label with the figure 5 was used to indicate the trend considered to be the most important, and so on by decreasing order of importance.

Once this stage was completed, the votes obtained by each trend were counted in order to determine which trends would be kept for the following stage. The trends that obtained ten or more votes were retained; initially, there were nine of these, but after "negotiations" had taken place, two different sets of two trends were merged because they were too similar. For example, one trend was "there are increasing numbers of self-employed workers and small businesses", which was very similar to "there are increasing numbers of new ventures and small businesses". After seeing how trends could be merged together, we tried "exploding" the remaining seven trends. The whole process took about fifteen minutes to complete.

The third stage involved discussing, as a group, the possible effects of the trends identified on the practices of the business, and indicating the results graphically, as a kind of map. For each trend, the participants were asked to identify the types of changes they might produce. Beginning with these change types, they were asked to go one step further and see if they could define possible concrete changes. This final stage lasted almost an hour and a half. At the end of the exercise, the participants were given a short questionnaire to complete, in which they were asked whether or not they appreciated the method. They were also invited to make comments or suggestions on how to improve it.

Context of the Experiment

It is important to note that the experiment was based on the case of a fictitious business. However, in providing the description of the context in which the business operated and the description of the products and services offered, the principal author of this paper drew largely on the situation of a genuine business of that type that she had directed for a number of years.

The participating group was made up of 13 students enrolled in a Master's-level management course given by a Québec university. Most of the students were managers who had resumed their education on a part-time basis, and this constituted an important advantage. It would clearly

have been less appropriate to use a group of undergraduate students, most of whom would have lacked any direct experience of managing a business.

PRESENTATION AND ANALYSIS OF THE RESULTS OBTAINED

Major Trends

In recent years, much has been written about the usefulness of identifying major trends in the business environment, or of producing a representation of the environment, in order to be in a position to detect opportunities, specifically in the form of ideas for new products or new services to respond to the trends observed. The number of specialists in futurology, who should perhaps be referred to as "futurologists", is growing. In the North American context, John Naisbitt (1982), Faith Popcorn (1994, 1996), Nuala Beck (1994) and David Foot (1996) are probably the best known and most often quoted. Of this group, one is a strategic planning advisor for small businesses, two are economists and one is a demographer. Although their futurology methods vary, their fundamental goal is the same: to explore the environment, detect trends and predict new business opportunities.

The participants in our experiment were asked, in concrete terms, to perform the same type of exercise, but in connection with trends that were probably more contextualized that those identified by the futurology specialists; they had to be directly or indirectly linked with the "trade" or area of specialization of the business concerned. The results obtained are worthy of attention. In a little more than thirty minutes, the group was able to agree on at least forty important trends that might affect the practices of the business concerned. Table 1 shows the entire group of trends identified; the wording reflects as closely as possible the phrasing originally used by the person who suggested the trend.

Table 1. Original Wording of Trends, and Votes Allocated.

- Information is circulating at an increasingly rapid pace **(31)**
- Leisure activities are becoming increasingly important in people's lives **(19)**
- The business world is affected by "perpetual" change **(15)**
- Individuals have several different careers in the course of their lives **(15)**
- Computers are increasingly present in people's homes **(12)**
- Innovation is becoming increasingly important for businesses **(12)**
- More and more money is being invested in new information technologies **(12)**
- There are increasing numbers of self-employed workers and micro-businesses **(10)**
- There are increasing numbers of new ventures and small businesses **(10)**
- Customers are becoming increasingly demanding **(9)**
- The amount of time spent working is decreasing **(7)**
- Time management is becoming increasingly important **(6)**
- Human relations are becoming increasingly important **(5)**
- Use of the Internet is increasing **(5)**
- Self-management is becoming increasingly important **(5)**
- There is more and more distance education **(4)**
- Businesses are focusing increasingly on participation and creativity **(4)**
- More and more people are resuming their education **(4)**
- There is more and more flexible timetabling within businesses **(3)**
- Self-actualization at work is becoming increasingly important **(3)**
- Various types of nationalism are becoming stronger **(1)**
- Ecology is a growing concern for businesses **(1)**
- Organizational meetings are tending to be held outside the business and outside the regular work schedule **(1)**
- There are increasing numbers of women in the workplace **(1)**
- Families are becoming increasingly important
- Governments are tending to have less power and money
- The wish to "return to a simple life" is being expressed more and more
- Individuals are tending to turn inwards
- There are more management research centres
- People are becoming better educated
- Markets are tending to become planet-wide
- More and more subsidies are available for establishing new projects
- Individuals are experiencing an increasing need for belonging
- Businesses are increasingly being required by law to provide training
- Internal hierarchies are a growing problem within businesses
- Individuals are gaining access to the job market at later points in their lives
- Workplace stress levels are increasing
- Competition from universities is increasing in the field of skills upgrading
- Employees are increasingly being called on to use new technologies

- The figure in brackets following each statement indicates the number of votes obtained.

As we said before, the participants were asked to vote on the priority to be given to the trends that would then be explored in more depth. Some of the trends that received the most votes caused no surprises, such as the trends related to the development of new technologies and the rapid pace of change that has resulted. The votes for other trends, though, were a little more surprising: one of the trends selected by the group was phrased as follows: "Leisure activities are becoming increasingly important in people's lives". As we will see below, this apparently irrelevant trend gave rise to some solid proposals of great interest for the business. It is possible that a more traditional approach would not have allowed such original results to be achieved.

Preparing the Joint Map

To prepare a map showing types of expected change and concrete examples, all the trends that received ten or more votes were selected. During the third stage in the process, each trend was "exploded" into as many pieces as possible, and the group strove continually to refine their ideas until they were able to state, as clearly as possible, a comprehensible change that could be actually applied within the business. The following seven trends from Table 1 were explored in this way by the group:

- Individuals have several different careers in the course of their lives (15)

- More and more money is being invested in new information technologies (12)

- Information is circulating at an increasingly rapid pace (31)

- Leisure activities are becoming increasingly important in people's lives (19)

- There are increasing numbers of self-employed workers and micro-businesses (10)

- Innovation is becoming increasingly important for businesses (12)

- Computers are increasingly present in people's homes (12)

First, we should point out that during the third stage, the participants had to determine the types of desirable or hoped-for changes that might result from the trends identified. We will refer to these concepts here as "mediating concepts", because they mediate between trends and concrete change. An examination of these mediating concepts reveals that they fall into two groups: organizational or managerial requirements, and various types of desirable innovations. We will begin by examining the managerial requirements that emerged in the first broad category of concepts.

The first type of organizational change indicated was the need for the organization to equip its staff with proper tools, in response to the "increased investment in new technologies" trend. In this connection, the participants mentioned that the need for training would affect both the staff who actually dispensed training programs and the administrative staff. A second type of organizational changes involved the need for the organization to train its training staff in new creativity techniques, in response to the "increased importance of innovation" trend.

However, in our view the richest, most promising comments arose in connection with the category of suggested innovations. Table 2 lists all the types of possible innovations suggested by the participants.

Table 2. Types of Innovation Suggested in the Group Map*

- New customer services (3)
- New training content (3)
- New educational approaches (2)
- New potential customer groups
- New training locations
- New types of prospecting
- New approaches to promotion

* The figure in brackets indicates the number of times the innovation was suggested. For example, the development of new services was suggested in connection with three different trends.

As can be seen from this table, the method allowed the group to imagine types of innovation that extended far beyond the development of new products. For example, various innovations relating to the development of the business's commercial function were suggested: finding new customer groups, developing new approaches to prospecting, offering new customer services. Other more original changes were also suggested, such as providing training in non-traditional locations that

would be a new departure for both the business and its customers. Other changes related more closely to the development of new educational approaches in certain sectors. Since the method used was designed as an exercise in projection to allow the anticipation of a wide range of changes, it is encouraging to note the variety and scope of the types of change proposed.

During the third and last stage, the participants were asked to develop their ideas even further. More specifically, they were encouraged to define precisely the types of new content, new approaches, new services, new customer groups, etc. that could be developed. Figure 1 shows the results obtained for the group of seven selected trends.

As Figure 1 shows, the ideas expressed were highly original. For example, the trend "Leisure activities are becoming increasingly important in people's lives" led to the suggestion that other locations for training should be explored as a mediating concept. And when the group went even further, other possibilities were discovered, such as the possibility of offering new approaches, or providing training sessions that combined leisure with training. In a similar vein, this trend led to suggestions that training be provided in a range of new locations: outdoor activity centres and holiday resort areas, overseas, in exotic venues and/or in warmer climates.

It is also important to stress that analysis of the "heads"[2] of the map has demonstrated the presence of several ideas that, at first sight, seem very promising. They include suggestions of sponsorship for new entrepreneurs, the establishment of job search clubs for customers of the business, new training content based on starting a business and the small business environment, the development of new tools such as an approach to allow the potential for creativity within a business to be diagnosed, the creation of discussion groups following various training sessions, and so on.

DISCUSSION AND CONCLUSION

We have seen that, with the help of the method presented and illustrated here, it was possible to identify, within a very short time, a large number of trends likely to have a crucial impact on the enterprise at the strategic level. The process, individual first and then collective, lead eventually to the identification of concrete changes suggested by the trends.

Figure 1. The Results Obtained for the Group of Seven Selected Trends.
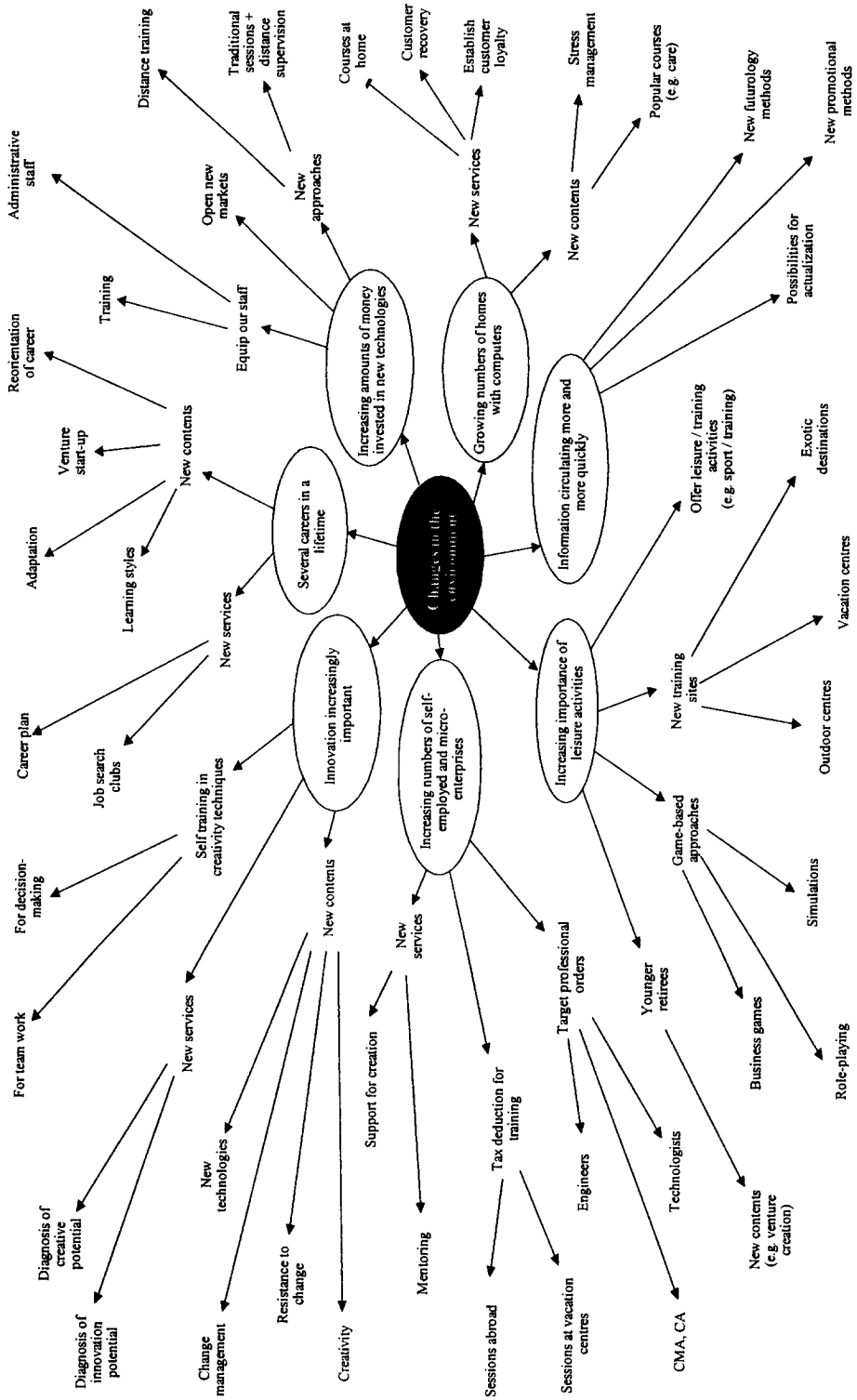
Despite our enthusiasm for the results generated by our experiment, it is important to stress the limits of our research. First, the method was tested, not within an actual business, but using a simulation with a group of students to represent the group of managers of a given business with a true stake in the problems involved. This situation was corrected to a degree, though, by the fact that, first, the students were Master's level students enrolled in a management program. In addition, many of them were either active managers or had been managers before resuming their education. The group was thus composed of intellectually mature individuals who were already familiar with the types of problems with which they were confronted. Furthermore, the type of business chosen for the exercise made it easier for them to gain a reasonably realistic idea of its different activities and of the need to imagine possible changes and innovations.

A second major limit was imposed by the fact that only one experiment was carried out, with a single group in a single sector of activity. Many more experiments are needed, with groups from various sectors of activity, before it will possible to demonstrate the actual utility of the method proposed. Obviously, it would be better if the experiments could be performed within actual businesses wishing to participate in the project and see the results it might produce. This interesting research opportunity will doubtless be exploited at some point in the future by ourselves or by our postgraduate students.

In connection with the experimental application of our method to a broader sample, we would like to make certain specific recommendations. First, we believe that the method must necessarily involve a second phase. One or two weeks after the exercise described above, the person applying the method should hold a second validation meeting with the same group of participants; this second phase would target two main objectives.

The first objective involves viewing the map against the context of all the trends initially identified. This process would allow the verification of trends that, although obtaining few votes, reinforce some of the proposed actions. Popcorn (1996) states that an idea for innovation is more likely to be a genuine opportunity when it is supported by two or more trends. The same type of analysis should ideally be carried out in connection with the trends indicated on the map. For example, if two trends on the map lead to the idea of setting up training sessions on how to start a business, the idea becomes potentially more interesting for the business. The second objective of the second phase would be to ensure that the method, after an intense period during which the participants are encouraged to present divergent viewpoints, is used to bring them together in a convergent

exercise during which the innovations to be developed will be selected by the group. Proudlove (1998) very aptly stresses the need to develop creative problem solving methods that combine divergent and convergent phases. An idea, however good, does not necessarily constitute a business opportunity. Its full scope must be understood, and it must often be transformed before it can be actually implemented (Timmons, Smollen and Dingee, 1986).

When the method is employed in the future, it would also be advisable to devote more time to the analysis of the trends identified before the participants vote on them. During the experiment, only brief discussions were held before the vote. In addition, as mentioned above, the participants spontaneously suggested that four trends should be merged into two because of their similar thrust. It is clear that a more systematic analysis of the trends would have led to further amalgamations. For example, several of the proposed trends relate to the growing level of computerization in businesses and homes, and it would have been possible to formulate a single new trend covering this whole area.

Similarly, a more systematic analysis of the trends identified would have allowed the group to develop a shared understanding of the trends, beyond their literal meaning. More specifically, each trend should probably be re-examined and the individual who suggested it should be asked to clarify its meaning, after which the group could, if it so wished, reword it if the initial wording was unsatisfactory. By doing this, the relative importance of the various trends would probably have been altered; it is possible that some trends received few __ or many__ votes because they were misunderstood.

Lastly, it would probably be advisable, during the second stage just before the participants are asked to identify trends individually, to insist more on precision. Specifically, the participants should be instructed to choose trends likely to have a clear impact on or influence over the organization and the products or services it provides. This approach would have allowed the elimination of some of the more surprising trends identified - surprising in the sense that the basis for their formulation was far from clear. One example of this was the statement "Various types of nationalism are becoming stronger", which obtained one vote, perhaps cast by the person who stated it in the first place. All the above changes should be implemented if possible, although they have the disadvantage of requiring more time.

Despite some of the drawbacks identified, we find the richness of the results obtained fascinating. We believe that the proposed method would interest a large number of small business that cannot afford to rely on

sophisticated futurology methods. Our method is simple and easily mastered in a short space of time. In conclusion, we can only state our hope that other researchers will decide to investigate some of the further reaches of this avenue of discovery, demonstrating a creative approach in their pursuit of creativity.

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FOOTNOTE

[1] Other terms used in the field of futurology can be used to establish classifications. It is thus possible to distinguish between tendential and contrasted approaches (see Buigues, 1985), or between conjectural, divinatory and abstractive anticipation (see Baumard, 1996).

[2] The term "head" is used here with the meaning proposed by Eden and Banville (1994), to refer to the concepts on the map that give rise to no links to another concept, but are simply the consequence of one or more links.