

The Philosophy to Succeed: Team Spirit, Innovation, Research, and the Creation of Technological Competitiveness

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Abstract—In this paper, we present our company’s philosophy: how to succeed and to achieve our goals, and, especially, to be innovative and always in the forefront of technology. Our goal is to present a success philosophy in an enterprise as a main key and a first step before starting any financial plan, growing the company, organization, recruiting, etc. In this paper, we present our vision on the subject. We are working to make this the key to success and the first step before building a group, a company, a project, etc. This process needs discussions, collaborations, exchange of ideas and experiences.

Keywords—*innovation; management; enterprise philosophy; success.*

I. INTRODUCTION

The strength of our company lies first and foremost on a team spirit and an effective work. Based on our results and the needs of our customers, our business system has improved.

With this spirit, we have:

(a) Collaborations with large companies that itself their research centers and we want to improve our technical and trade relationships.

(b) Met the needs of our clients.

(c) Increased our impact and our speed selections of candidates while allowing our teams to take the time to establish good human relations (removed some of the loss of time due to the time-consuming research).

(d) Developed new markets/new in connection with research and companies revolving around.

Our goal is not only to satisfy our customers and have the financial gains but also:

(a) Improving working conditions and commercial successes.

(b) Be more up to date that overlooked technicalities, be the purveyor of new technicalities. Register as the architect of the technological future.

This paper is structured as follows: Section 2 is dedicated to the presentation of our company. In Section 3, we detail our philosophy. In Section 4, we present one of our successful projects based on this philosophy. Our main results are presented in Section 5. Related work is presented

in Section 6. The last section is dedicated to the conclusion and perspectives.

II. PRESENTATION

Our company is specialized in the provision of experts in computer engineering. It designs and implements strategic, technological and organizational proposals to meet the needs for competitiveness expressed by the top management of 60 large groups. Interventions are made with large accounts, such as Orange, IBM, Amadeus, HSBC, GDF SUES, etc.

The main areas of our company: Innovation, research, consulting, creator of technological competitiveness. Since its creation, our company developed his expertise in technical consulting in the field of information systems, networks, telecommunications and development, especially in the area of banking and finance. Our strategy allows anticipating daily changes in technology and coordinates with the resources. Thus, the expertise of our consultants is primarily recognized by customers of our company. It is a real guarantee mastery of technological developments and the permanent transfer of know-how.

A. Our Principle

Our company was created over twelve years ago. Our principle is shared ambition, to create a company combining dynamism and innovation, expertise and human values. From the creation of our company, we always want new growth opportunities. This is neither unreal nor evanescent; we were just able to realize our project to a reality and a successful company.

Our company has grown year after year, posting significant and noteworthy growth each time. Regularly awarded for its outstanding performance (enterprise, Challenges, etc.) and rewarded for its growth (Deloitte Special Award), our company has continued to expand and establish a clear and well-known presence for itself.

B. Our characteristic

Deeply involved in a constantly changing environment where local challenges blend with globalization, our

company is now backed by its vision of a global offer of services that makes it technologically competitive. This vision is being developed in close collaboration with large groups whose needs change with the market's latest currents trends.

The challenges we want to take up today are dictated by an analysis of our ecosystem. We need to sustain the achievements that are our strengths, like our resources, our areas of expertise, and our policy of ethics and social and environmental responsibility, and to combine it with an approach that systematically anticipates client needs and changes in order to achieve proven leadership.

C. *Our main objective*

We intend to achieve the objective that we have set for ourselves through a growth model. This model was adopted when we founded our company. Designing new solutions, positioning ourselves at the core of innovation and developing an international offer of services are the cornerstones of this strategy. By constantly keeping in touch with our founding values, we can already foresee a very promising future.

III. THE PHILOSOPHY OF OUR COMPANY

In this paper, we present an overview of our success philosophy. Everyone knows this philosophy. But unfortunately, we can experience failures by neglecting / ignoring of one of the steps in the success chain.

Considering the steps to success as a chain rings, the idea is not have the same rings and the same chain but rather: (i) place the rings in the order that corresponds to your objectives, (ii) not have an empty rings, and the most importantly you must have the golden rules to build your chain.

In this section, we present the main axes of our philosophy.

A. *Human plants*

Since the establishment of our company, this point is still one of the main tasks that we need to study / treat with great attention. Our goal is not only to satisfy our customers and have the financial gains but also improving working conditions and commercial successes.

The most important is to believe of the competences of each member. We believe that a single employee can bring the company beyond the vision of its leader. This can be achieved by offering him all possible conditions.

Our company provides a stimulating work environment that contributes to employees' growth. We encourage our best elements to develop their competencies and we accompany them personally in their career within our company. Dialogue is to us the key of individual and collective success, towards shared growth. The information exchange is important in our enterprise. This is why the team spirit is one of the keys to our success.

It endeavors to respect and value cultural and ethnical diversity. Diversity is for us synonymous with performance, and without it our organization could not grow in a manner coherent with our founding values. Our engagement transpires in the development of a culture of diversity and integration, promotion of equality of chances, and respect for individual differences.

B. *Innovative ideas / research and development (R&D)*

For over 10 years, facing a perpetually changing environment, our company assists its clients in process and innovative solution adoption. At the crossroad of economic, environmental and performance issues, R&D according to our company innovates each day to develop competitiveness of major accounts. Since the establishment of our company, we are convinced that research should be an important pillar for the success of our company.

The history of our company is marked by the desire to own innovative solutions. And which are relevant to its own business processes and allowing a better approach to its business. For example, since the establishment of our company in 2001, we implemented a processing application to select the best candidate for recruitment. This technology was innovative; it has now become a common use. This tool was followed a few months later the implementation of a CRM (Customer Relationship Management) development project Gestcom [10]. This new innovative has proven so no change was needed for seven years in the CRM.

The strength of the company has increased with the ever increasing efforts on the organization and development of the internal applications. At the center of economic, environmental and performance problematic, our research and development department federates the company's expertise around innovation. By conceiving innovative processes and services and by encouraging technology and knowledge transfers, we create value for our clients and their activities every day.

C. *Satisfaction*

Even if our customers are always satisfied with our results and our services, our philosophy is to always give more and do better. Through a comprehensive approach combining functional expertise and methodological experience, our company follows several groups in the evolution of their organization. We bring pragmatism and reactivity to our clients, in a transversal vision with the objective on performance and competitiveness.

Staffed with experts, our center of competences enables our company's adaptable and flexible solutions. In the context of various business intelligence projects, it anticipates new technology development, enables new ideas and scenarios to emerge, to integrate them in its performance proposals to its clients.

D. *Face of the obstacles*

Our company uses its innovation capacity and its expertise to develop growth and competitiveness for

companies. We develop new and efficient strategies by founding our solutions on best practice work methods and on our network of over 700 consultants.

This innovation capacity, we gather it in the ecosystem in which we belong and which encompasses partners, providers, researchers, institutions, clients, etc. Our company shares learning and knowledge with two excellent structures: its research and development department and its competence center.

E. Our strategy

Our strategy is to develop a transversal and multi-sectorial approach adapted to its market leader client's exigencies. Up close with the C-suite, we make strategic offers, founded on need anticipation, audit, diagnostic, and change accompaniment. We thus offer a global service in order to bring organizational expertise, digital intelligence, and technological competitiveness to big groups. Our strategy is divided on two main parts:

E.1 Competition value and new opportunities: We create within companies a real competitive value. Born from IT service optimization, it develops within the business lines which take back their key place inside the organization and open new business opportunities. Thus, we endeavor, through appropriate solutions, to our client's development, performance and efficiency.

E.2 Strategic vision and operational efficiency: Thanks to a proven know-how, our company reconciles a long term strategic vision with short term operational efficiency. With a logic of sustainable and growing performance, we commit to achieving targeted results, whatever solution is chosen: Financial/Banking, Cloud, Digital Intelligence or Expertise Center.

IV. CASES STUDIES

In this section, we present one of successful project in our company: Automatic process recruitment. The recruitment process concerns us all. We describe this process by presenting the context, the issues and objectives, an overview and the methodology. Then, we will present the results that confirm the efficacy of our process.

A. Context

Whatever our field (research, education, industry, etc), generally we follow the same process recruitment: launch calls for tender to find candidates: PHD students, PostDocs, engineers, etc. Usually, human resources service which is in charge of the first selection: application corresponds to the tender. Generally, for a large number of CVs, we must find the best candidate. Everyone wants the best candidate!

Even if the service has good computer facilities, the selection process is done by a quick reading of CV by staff. This may have several disadvantages: (i) have just an overview of CVs, (ii) select the CVs based on titles, education, etc, and (iii) and we can overlook some CVs due to bad presentation of significant information.

The question that arises is: Is there any software, automatic methods to find automatically the best CV that corresponds to a specific tender? Few works to date. Mainly, they concern the CVs and research methods of finer profiles and in restricted areas.

Among its research, our company is interested to the recruitment process among its customers. The main objective is to respond effectively to the needs of a customer through its bidding.

The effectiveness of our service is capitalized in three important points, which are the keys of our success: (i) find the best candidate, (ii) answer time as soon as possible, and (iii) enrich the knowledge base of the company to improve the service quality, and response time.

With the experience of our company staff, we are convinced that automation and building intelligent platform will be the key to achieve more success.

B. Issues and Objectives

The CVs are presented in different formats (word, pdf, etc.) and with different languages: English, French, etc. Every one try to present the key words/parts of his/her CV: education, experience, etc. By a quick reading of these CVs, it is possible to overlook some of them; this is due to a large number of CVs received, bad presentation, and limited by time to answer a tender.

For recruitment, every company consults multiple sources of information called job board, CV databases or resume banks. Access to these resume banks is usually paid and requires a secure login / password access. Some of these websites are simultaneous multi-user (only one login / pass for multiple simultaneous connections). But the trend is increasingly to make single-user and block access to the IP address of the company from which the "recruiter" makes his/her operations.

Commercial engineers / business (employees) are responsible for the recruitment phase: find the candidate, respond to the tender. The turnover of this population is important. These inputs / outputs can have several consequences:

- Security access to resume banks CVs: usually, employee leaves the company, to take a similar position in another company. The user can always consider using its old access.
- Company data protection: employee has access to confidential customer data and working methods specific to the company. His departure may cause a leakage of confidential company information.
- Storage of data and information collected by the employee: during his/her employment he/she acquires information, open accounts receivable, qualified contacts, CVs information. Centralizing, sharing, and securing these data are essential for the continuity of service.

Since the establishment of our company in 2001, we develop tools to improve the quality of our services (priority, the recruitment process). These tools developed

internally are considered as a base of qualified candidates and a custom CRM (Customer Relationship Management). They have taught us the necessity of constant leading commercial operations to ensure the flow of information.

In this context, we outline our objectives to be achieved:

- Secure, simplify and streamline access to information banks of CVs.
- Automate the collection of information considered important to the company and its employees. This is done by linking data from different sources in the work environment.
- Support decision making by creating a fast and efficient tool based on the past actions / reactions.

Our methodology enables decision support during the phases of recruitment. By taking into account the behavior and decisions of the past, it allows to: (i) find and save information, and (ii) make proposals to human resources service. During the conception of our project, it appears that two major parts are needed to achieve our objective, namely:

- Safety and acquisitions metadata by a connection algorithm and automatic extraction.
- Creation of automated decision-making algorithms.

C. Overview

In our project, we have two main parts:

1) Automate access to external resources and metadata acquisition

Our application is auto connected to different web applications. This feature allows centralizing, administering and managing passwords for access to these applications. This self-connection is made instead of the user, which ensures the confidentiality of passwords to applications. This allows a rationalization of use and deployment of reporting tools. Our ambition is to create a resizable machine learning system. The job websites tend to "change" over time their visual structures and functions. Our system must be adaptive.

As to its use, the implementation shall not acquire just the metadata resumes, but also the actions of the user to establish the CVs banks behavior, content and reactions. This data acquisition will be carried out in real time without affecting the playback speed and the work of the user. Our system must automatically enable information extraction from human manipulation. Our system learns and correct actions based on human feedback.

The traceability of actions, results, and data will create the path decisions. This objective has several intrinsic goals including: control, collect, detects, secure access, trace operations, to establish an accelerated recruitment process, but also provide the basis for work in phase 2.

2) Proposition of adapted selections

Based on previous data manipulated by the algorithm, the implementation will provide a shortlist of candidates and

automated queries, which allow searching additional data from provider metadata.

We aim that the results of our achievement will be able to rehabilitate these proposals by observing the behavior of the user facing them. "Learning from mistakes or contrary from success".

D. Methodology

A major uncertainty is related to the automatic authentication and real-time processing of the CVs information. Our goal is to enable an "Automatic connection" of employee to web applications. This authentication phase will take place instead of the user, without any action on his part. Logins and passwords are not disclosed.

For many years, the target websites are subject to illegal data recovery through robots. Therefore, they are equipped with tools to protect against what appears to be automation of connection and exploration.

The difficulty is to allow our automatic connection operations to the remote site without being stopped by these protections. This implies on the one hand, to create algorithms for dealing with cases of human connections, on the other hand, the validation process of the conduct of these operations. Our real-time system should analyze data from user actions. The data in the website should be processed to extract useful information. Also, covering a number of parameters identification, path and working hours are to be transmitted to the analysis server. To optimize these transmissions, minimize transmission time and avoid delays, the data must be preprocessed efficiently.

The difficulties are related to: (i) learning mechanisms and restoration of automatic path processing system, (ii) real-time processing of important flow of information, and (iii) the number of parameters to be saved/analyzed. The processing algorithm extraction from DOM (Document Object Model) [11] is crucial, and a client-side pre-processing is required. The treatment of errors and anomalies must be addressed in these flows of information to enable better responsiveness of production.

E. Validation

To validate our prototype, a test team (outside Research and Development) was created. Our goal is to improve our model and minimize performance issues. We have to build a corpus evaluation by relying on the contents of the pages, the headers sent and received. Data used for these tests were constructed from different CVs databases. This corpus is currently used by the employees of our company. Table 1 presents an overview of our results.

The rest of information remains confidential. But during the presentation of our paper, we can give all the information and answer any questions.

We outline our progress since 2010, in order to present the usefulness of our system. For example, during 2013, we received 2797 tenders and 41067 candidates applying to

these tenders. Our recruitment process follows the following steps:

- CVs collection: The main objective of this first step: a large collection of CVs from several CVs banks. This allows more chance to find the best candidate. Linking CVs to tenders, we have 3288 CVs.
- CVs filtering: With this operation, we filter the CVs by eliminating redundancy. This gives us 2337 CVs.
- Cvs selection: In this step, in addition to the criteria of the tender, we introduce the clients and candidates requirements. We have 473 selected Cvs where:
 - 124 automatically selected (4 seconds / CV).
 - 349 CV semi automatic. The employee adds extra information based on the system queries. This needs 5-15 minutes/CV.

TABLE I OVERVIEW OF RESULTS RECRUITMENT

Year	2010	2011	2012	2013
Tenders	499	1990	2984	2797
Applying candidates	30981	22037	24845	41067
Recruitment	62	288	375	473
Automatic Cvs selection (%)	33,87	22,91	27,46	26,21

V. RESULTS

In recent years, we work on several projects:

- Area calculation banking sector.
- Area calculation in terms of maritime route or congestion prediction.
- Methodologies.
- Optimization transfer speeds.
- Eye-tracking.
- Search Engine.

We are also start working on

- The ecology, green power, the green touch
- Privacy and Security Policy
- Optimizing IT service trades.
- High performance computing.
- Artificial Intelligence.

The main keys figures of our success are

- More than 80M € in 2013
- 300 new technological projects carried out in 2013.
- 45% certified consultants
- 500 planned recruitments for 2014

Figure 1 presents an overview of our research center. By creating a research center, we are convinced that when we work in a research environment, new ideas, collaborations, precise organizations can be done in the good way.

We predict to continue our collaboration with our partners by presenting our services to answer their needs. This can help us to have a funding and also to have new collaborations.



Figure 1. Overview collaboration

VI. RELATED WORK

In this section, we briefly discuss related work in the investigation of process recruitment. We present the related work on three main parts:

A. Acquisition of structured data in the navigation

Despite the large number of the CV databases, interconnection, exchange and standardization of CV is almost inexistent. The existence of the work of creating unified CV as HR-XM [1], which is a standard XML format for structuring CVs. It is limited by their major drawbacks: Heavy, unsuitable and they try to meet all needs.

Different methods of content recognition exist to allow the extraction of important features in the CV content as [1] and [2]. If these techniques represent a great step forward in automation, it should be noted that the error rate results in a significant underperformance. These errors recognition / extraction are risky in terms of professional use. They therefore show the boundaries of these systems directly related to the corpus and the test feature dictionaries.

To our knowledge, no tool allows to create an automated manner based business metadata in the navigation on the Internet.

B. Protection and easy access to the metadata service

Several tools of SSO ((Single Sign-On) as OpenID [4], YahooID [5], LiveID [6], Google Account [7], etc., allow a decentralized authentication to simplify our "conservation password" and modify once all access. However, these methods are not adapted to our context:

- The user must connect without having to enter the password.
- There is no concept of law in the SSO would allow us to allocate access to a resource for a specific duration.
- This would imply that all of our providers change their authentication system to adopt our choice of SSO.

Different browsers (Internet Explorer, Firefox, Safari, etc.) can automatically save passwords when entering the site. There is "safes" software that store the login and propose an automated way when re-visiting the page. These solutions are not adapted to our context because they are based on: (i) an individual storage, non-collective or centralized, and (ii) a first manual input from the user, so knowledge of access elements.

C. Decision Support

There are business intelligence tools, each more powerful than each other, but whose goal is to present or change the information by mapping data. This induces the adaptations of data or analyzes must be designed and implemented beforehand. It is unable to suggest appropriate results based on past patterns of functioning of the visual aid decision tools.

We conclude that no solution correspond to our request. Indeed, it is the principle of business service companies. None of them has any interest in sharing its "know-how" or "functional characteristics".

In addition, CV operators have no interest in pooling their information, as this could have financial implications. Based on this information, we conclude that no "business tool" did not meet our expectations. It is possible that our competitors have their tools, but this data cannot be known with certainty. It is likely that the axes of reflection were conducted. If this is the case, we need to acquire. Otherwise, it remains a challenge that must be addressed.

On the principles of automation, there are research works based on mails [12] and others based on automatic learning techniques. For CVs, describe an approach to data mining with controllers that have interested us and that work on the categorization of Quinlan, 1993 [9]. But, the entire work leading to identification of corrects classification of the order of 50-60 % results. It remains unsatisfactory to us.

Our approach allows extraction of data from the CV from basic patterns. These results provide statistically approaches but experiencing errors (10-20 %). Our commitment to performance, leads us to try to imagine a new concept. The literature review allowed us to refine our functional needs and foresee the technical obstacles.

VII. CONCLUSION

In this paper, we presented an overview of our company philosophy that aims to get more success day by day. In our opinion taking into account the keys of our philosophy, everyone can have the best success. That does not mean that our strategy is the perfect one. But, it is a successful one because today our collaborators are convinced by our services/results. This can encourage us for better. Also we are open to all reviews that can help us to go forward.

The implementation of several projects in collaboration with our clients, we confirmed the need for further progress. Our goal is not to present just our company but rather values in research. We are convinced that research should be an important pillar for the success of our company.

With the clients' confidentiality, we are not allowed to disclose the details of our performance results. We believe that we need to address to the research community to present our values and skills.

Today, to achieve our goals and our ambition, it seems we need to strengthen our team through partnerships with research laboratories.

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