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**Création d'une entreprise pour le développement d'une
plateforme de solutions en Supply Chain Management**

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Abstract

Our final year graduation project underlines the process of the creation of a freelance startup company, which facilitate for companies to reach out to supply chain managers and industrial consultants.

We presented and studied the concepts: Consulting, Freelance and supply chain management separately. We also provided an analytical study for startups' Ecosystem and the industrial environment in Algeria.

Our Business Model was elaborated it using "Design thinking" method to design a freelance website named IFEC. We structured our technical study using MCD to illustrate the graphical representation of the website, MLD to present our database and PHP as a coding language.

Finally, we presented the final layout of IFEC and explained how it works.

Key words: startup, freelance, consulting, Supply Chain Management, Algerian Ecosystem, GIG economy, PME

Résumé

Notre projet de fin d'études souligne le processus de création d'une start-up de freelance qui permet de lier les entreprises avec les experts de la chaîne logistique et les consultants industriels.

Nous avons présenté et étudié les concepts : consulting, freelance et Supply Chain Management séparément.

Nous avons également établi une étude analytique sur l'écosystème et l'environnement industriel des start-ups en Algérie.

Notre Business model a été élaboré en utilisant la méthode "Design thinking" pour concevoir un site web de freelance nommé IFEC. Nous avons structuré notre étude technique en utilisant le MCD pour illustrer la représentation graphique du site web, et le MLD pour présenter notre base de données et le PHP comme langage de programmation.

Enfin, nous avons présenté le prototype final d'IFEC et expliqué son fonctionnement.

Mots clés : startup, freelance, consulting, Supply Chain Management, Ecosystème algérien, GIG économie.

ملخص

يتمحور مشروع التخرج حول تأسيس شركة ناشئة مختصة في العمل الحر عبر الانترنت، تسهل على الشركات الصناعية عملية التواصل مع أخصائي الادارة اللوجستكية والاستشاريين الصناعيين

من خلال هذا العمل، قدمنا ودرسنا مفهوم كل من المجالات التالية: الادارة اللوجستية، العمل الحر عبر الانترنت، والعمل الاستشاري بشكل منفصل. تناولنا دراسة تحليلية للمحيط الصناعي وال مقاولاتي للشركات الناشئة في الجزائر. تم تطوير IFEC مخطط العمل الخاص بمشروعنا باتباع خطوات "التصميم التخطيطي" لتصميم موقع ويب للأعمال الحرة المسمى

لتقديم قاعدة البيانات الخاصة MLD للتوضيح التصميم الجرافي للموقع، و MCD قمنا بتنظيم دراستنا التقنية باستخدام وشرحنا طريقة الاستخدام. الكلمات المفتاحية: IFEC كلغة برمجة. اخيرا، قدمنا التصميم النهائي للموقع PHP بالموقع، و العمل الحر، الاستشارات، ادارة السلسلة اللوجستكية، النظام المقاولات في الجزائر

List of abbreviation

ADL: Arthur Dehon Little.

R&D: Research and development.

BBC: British Broadcasting Corporation.

USA: The United States of America.

UK: The United Kingdom.

KPMG: Klynveld Peat Marwick Goerdeler.

IT: Information Technology.

MCA: Management Consultancies Association.

FEACO: European Federation of Management Consultancies Associations.

HR: Human Resources.

HRM: Human Resources Management.

CAGR: Compound Annual Growth Rate.

EMEA region: Europe, the Middle East and Africa.

NGO: Non-Governmental Organization.

CEO: Chief Executive Officer.

ERP: Enterprise Resources Planning.

SC: Supply Chain.

SCM: Supply Chain Management.

EDI: Electronic Data Interchange.

MRP: Material Requirements Planning.

MRP2: Manufacturing Resources Planning.

JIT: Just in Time.

TQM: Total Quality Management.

VMI: Vendor Managed Inventory.

SKU: Stock Keeping Units.

RM: Raw Material.

PM: Packing Material.

FG: Finished Goods.

MD: Medical Device.

AS/RS: Automated Storage and RETRIEVAL System.

SAP: Systems Applications and Products in Data Processing.

MM: Materials Management.

KPIs: key performance indicator.

IP: Propriety Intellectual.

BMC: Business Model Canva

MCD: Conceptual Data Model.

MLD: Logic Data Model.

Id: Identifying.

SQL: Structured Query Language.

PHP: Hypertext Preprocessor.

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Introduction

1. Introduction :

In a dynamic business world, companies from all different sectors have been competing since ages to dominate the markets all over the globe, starting an endless race to be unique, different and innovative. This race motivated thirsty managers to work on every detail in their company's business plan from how to select suppliers to how and when to deliver the product or service to the suitable client segment with a good price and a good quality in a perfect time.

However, to reach the good price and good quality, managers focus on the optimizations of all departments in the company from finance, forecasting, human resources, production, delivery... this relationships between the departments from the inside of the organization or the outside is called supply chain; now the process of optimization of the supply chain is known as the term supply chain management.

Supply chain management is new concept in modern business world, however, it is has been spreading very wild and fast globally because of it positive impact on companies. As a result, we live to witness huge improvements in supply chain management, big companies are no longer trying to adapt previous supply chain methods, now each company is trying to create its own supply chain, new methods and new tools to optimize their performance.

While the race is still on between big supply chains, the field is still new to the Algerian local companies, through our experience as supply chain management students for 5 years, it was very hard for us to find an internship because of the absence of supply chain departments in most local companies, it was harder for us to explain the field for managers and people.

The absence of supply chain management culture in our country is a true struggle not only for us as we have an anonymous work future, but also mainly for the local economy, this absence does not mean the absence of supply chain problems, companies are struggling to:

- Define what product or service they should offer.
- Locate where to build facilities.
- Establish an optimized transport network.
- Find the suitable production system.
- Manage internal and external logistics.
- ...

Most local companies small or big make their decisions with a fragile study or without any study based on intuition or experience. However, these problems require a good supply chain manager or a team of supply chain managers to be solved and corrected.

A good supply chain management has taken companies from the bottom to market leaders, experts of this field are highly requested and highly paid, the implementation of a supply chain department with excellent managers is not always given for all companies, they represent a heavy budget, most modern organizations hire managers for internal supply chain management, while they hire consultants for external supply chain management under a short term contract.

Consultants offer the company very good services and make neutral decisions they represent their external eye on the market. However, local companies rarely ask for a consultant or they only do when the situation is critical and they have no other solution but to hire a consultant, through our study, this act is due two main factors: first, companies do not have the culture of consulting and second, companies find consulting firms fees very expensive.

Consulting firms offer to companies well trained managers to solve their problems, big firms - such as the big four- provide their presence with offices around the global to serve multinational companies which is the case here in Algeria, they also provide their virtual presence through internet in websites they provide advisory services using emails, phone calls and video meetings.

This type of consulting give companies from all places to benefit from experts from different regions of the world with different time zones.

Virtual consulting has been developed to form a new sort of business under an economy called “GIG Economy” practiced online. Now any manager or skilled person can be a consultant in his domain without joining any firm, this service is provided through specialized websites that help employers to find and hire any expertise they need the time they need with the price they desire.

This new concept of business is called “freelance”.

2. Our thesis topic:

Our research subject is based on its title(creation of an enterprise for the development of a supply chain management solutions represented as a startup platform for freelancing), creating a virtual marketplace for consultants and industrial experts where they can meet employers and projects holders and offer them their services to improve their supply chain performance.

The platform is a startup company dedicated for the implementation of supply chain management solutions with a creative smart way.

In our work we will spot the light on three modern concepts in the business world witch are: Supply chain management- consulting- freelance. We will also link this three concept through our website.

3. Problematic:

In order to accomplish this research, this work must be done in an organized and well structured form. In this paper we will guide you step by step to show you how can we found a startup company by linking between the three concepts mentioned(supply chain, consulting and freelance) that can add a value to the Algerian economy by providing innovative new methods, solutions and advance tools through a website dedicated for industrial freelance. In order to clarify our work method we also ask the following questions:

1. What is supply chain management? What are its principals and how can we integrate it a company?
2. What role does a supply chain manager play?
3. How can we define consulting and how did it developed through history?
4. What are the segments of the consulting industry?
5. How to become a consultant and what qualities are required in a consultant and how they work?
6. What is freelance, and how did it become a big industry?
7. How does the Algerian market respond to these modern concepts?

4. Objective:

The objective of this research is to change the usual work mentality, by adopting the remote work based on the Freelance aspect dedicated to the local industries full with opportunities for Algerian supply chain experts to find the suitable flexible job offer they need and do the business they want. In another hand, we help the employers to hire the expertise and the talent they need to get the job done.

We also aim to encourage local industries to use modern communication channels and work platforms guided by the latest technological tools, in order to obtain multiple benefits for the good of the institution and thus contribute to the revitalization of the country's economic base. Through our project, we aim to:

- Facilitate the communication between employers and managers
- Provide a flexible work way for experts where they can work whenever they are free and wherever they are located.
- Encourage modern payment methods.
- Encourage the culture of consulting and freelancing.

5. Structure of work:

This work is carried out according to a research methodology used within the establishment of our higher school of applied sciences of Tlemcen (Ecole Supérieure en Sciences Appliquées Tlemcen: ESSAT), called TIMRED (Title, Introduction, Methods, Results & Discussion). Moreover, using the ACM coding standard, we have coded abbreviations and technical words that are often repeated.

This brief is written in several chapters as follows:

- The first chapter treats the meaning and the different definitions of supply chain management thus the principles of the supply chain management and the factors controlling it amelioration, we also discover the role of a supply chain manager in a company.
- The second chapter treats the concept of consulting, its definition and evolution through history. In this chapter, we also share with you the characteristics and the qualities of a consultant.
- The third chapter describes the methodology of the freelance industry and its contribution in the GIG economy documented by valid statistics and studies.
- The fourth chapter is a study of the Algerian market established from two viewpoints: managers and companies understand the standards and the characteristics that define it and collect data to adapt our solution to the market needs. The study is established through interviews, surveys and meetings with CEOs.
- The fifth chapter is a demonstration of the process we followed to design our solution from the business model canvas (BMC) to the conception of the platform (IFEC).
- conclusion of the thesis and discussion of the obtained results.

1 Chapter 01: Consulting General Background

1. Introduction

The concept of consulting is a concept that has evolved a lot over time. In the not too distant past, there was confusion between the different expressions of consulting.

However, today they are no longer synonymous; a clear difference has been developed.

In this chapter, we will start to present and define the different concepts, which are linked with our research subject «consulting in supply chain management».

For this, in this chapter, we first present a general context, which contains the definitions related to the concept of the consulting industry, its evolution, its segments, its market and the gain generated by this field. As well as the work process of the consultants.

Thereafter, we will approach the concept of the consulting industry, as well as the known virtualization of this huge field to arrive at the subject of our problem.

2. Definition of consulting

Professional of technical fields we say “a consulting engineer“, as noun: consulting is the business of giving expert advice to others professionals and for verb: consult means seek information or advice from (someone, especially an expert or professionals).

Adjective: consulting: have many explications:

- 1-engaged in the business of giving expert advice to people working.
- 2- Have discussions with (someone), typically before undertaking a course or action¹.
- 3- Refer for information to (a book, diary, or watch).

3. History of consulting

Although the huge massive grew of advisory in the last decades, consulting is the least searched field compared to other industries writing this thesis we used multiple literature sources and previous thesis to collect the most coherent and suitable information together.

Going back in history, advisory has been devised into three (3) groups: 1) management consulting 2) strategy consulting 3) legal consulting.

In 1886 the first consulting firm was created by Arthur Dehon Little, a chemist from the Massachusetts Institute of Technology , ADL chose to work on complex unique problems that other consultants couldn't solve ,he refused to deal with common problems that companies faced .

Other consulting firms took the chance to work on those simple problems and taking less risk. So they grew in the field that Arthur Dehon Little created, he did not notice that the consulting field grew because of homogeneity not by innovation.

For that, after the world war, DuPont company started thinking in diversify their services not only chemical and scientific products, they possessed general motors, changes their structure and worked on different functions such as sales, production and R&D.

At that time, so many firms were created following the wave.

Later on, many consulting firms were created following the wave taking the same step as DuPont like McKinsey or Booz Allen Hamilton in 1930, until 1960, these three firms played a major role in management consulting.

They helped companies with the multi-departmental structure, however the economic crises has effected there growth so the firms needed a completely new product to sell. Unfortunately, the big three could not figure it out; but the new Boston consulting group did.

They had two Theodoric offers: experience cure and BCG Matrix and this was no longer management but strategy consulting , this new context helped firms to better allocate resources , they also to extended to Europe witch made the group world wild famous and helped importing the legitimacy of consulting activity .

¹ dictionary definition

In fact, back then, a firm would never announce that they hired consultants that would mean that the company is having a hard time.

at the same time the consultants don't have the right to announce their clients name ; until mid-1960 , European firms were the first to publicly recognize that they hired the Boston consulting group to give clear warranties of their legitimacy ,this transact gave a huge publicity for the group and it was surprising for other consulting firms.

In addition, this how consulting firms went to legal consulting by providing two functions:

- Bring new ideas
- Supporting legitimacy.

For example in 1975 the Boston consulting group helped the British government to approve the decision to put an end to the motorcycle industry (their sales were about to collapse) by establishing a whole study that proves and supports the government's decision

Basically , the Boston group earned the government trust by approving their decision , the McKinsey was also next to other prestigious clients like BBC, Post Firm, British rail and Bank of England , we can say that consulting firms in this area searched for the governmental support by supporting government decisions , they played the role of audit most often to gain legitimacy .

Acting like an audit did not stop big firms to innovate, as if McKinsey in 1982 brought the new 7S concept to the market.

3.1 The big four

we can't talk about the history of consulting and the growth of consulting firm without mentioning the phenomena of "the big four" , this last term refers to now days the big leader firms in the consulting industry , the story began in 1970 there was eight big consulting firms called "the big 8" it reflected their international domination :

- Arthur Andersen
- Arthur Young
- Coopers & Lybrand
- Deloitte Haskins & Sells
- Ernst & Whinney
- Peat Marwick Mitchell
- Price Waterhouse
- Touche Ross

Most of the big eight were located in the United States of America (USA) and the United Kingdom (UK), in the early 20th centuries the firms started international expansion as multinationals for worldwide services. They expanded by forming partnership with local firms; Arthur Andersen was the first to expand internationally by establishing their own offices in other markets.

In 1986 the big eight became the big six (6) when **Ernst & Whinney** merged with **Arthur Young** to form **Ernst & Young** in June, and **Deloitte, Haskins & Sells** merged with **Touche Ross** to form **Deloitte & Touche** in August.

The big six after the mergers:

- Arthur Andersen
- Coopers & Lybrand
- Deloitte & Touche
- Ernst & Young
- KPMG
- Price Waterhouse

In July 1998, **Price Waterhouse** merged with **Coopers & Lybrand** to form **PricewaterhouseCoopers** to form the big five:

- Arthur Andersen
- Deloitte & Touche
- Ernst & Young
- KPMG
- PricewaterhouseCoopers

In 2001 and after the Enron scandal the name Anderson has been dropped from the list

Therefore, in 2002 the big five became officially “the big four”

As they started, consulting firms employed regular industrial people, a while after, the big firms looked for an institutional structure to hire qualified consultants, McKinsey and Anderson started working hand to hand with business schools and universities starting with Harvard, Columbia, Stanford to business schools in Europe.

In less than 20 years, consultants could create a whole profession and a new industry to the marking, creating at the same time new opportunities and projects and other professions consequently, like business strategy schools.

As mentioned above, advisory started with three main groups, in 2020 the segmentation has grown with the growth of this field:

- Strategic management
- Information technology (IT) consulting
- Human resource consulting
- Virtual management consulting
- Operations management consulting
- Engineering management
- Management science

To resume and according to all the literature sources that we read and discussed; we can say that this industry has developed from :old advisory where people used to do as a favor or for a cheap price when helping other people having difficulties in a specific domain, to a whole industry. Creating at the same time new opportunities and projects and other professions as a consequence,

Moreover, it did not stop by creating firms and hiring best consultants, advisory like any other industry kept following the changes at the trends, Firms started by following the rise of IT industry by integrating technology to their services²

4. Consulting industry:

The traditional definition of consultant is to get to solve a variety of problems in a broad range of industries but when we say “consultancy” and “consulting “ this terms can refer to many different advisory disciplines varying from engineering and architecture to management consulting or financial advisory³ .

Industry analyst’s estimation distinguue over 200 different type of consulting extents. This huge number is the result of dozens of combination of diverse sector and expertise areas.



Figure 1-1: Consulting segments

Source : consultancy.uk

However, since the remarkable rise of the consulting segment from the mind 1960 onwards, the term consulting has increasingly been associated with management and business consulting services.

As a result, when people talk about consulting industry they often refer to the market related to advisory services in the field of strategy, management and organization.

Over the past years, specialists have proposed several diverse typologies how to define and value the consulting industry, yet in practice representative bodies such as the MCA, FEACO and analyst firms like ALM Intelligence apply dissimilar descriptions of the consulting market.

Therefore, if we resume we can say that the typology of the US established on analyst firm partitions the consulting industry into six main segment, as the picture below shows:

² (<https://wiki.consultingquest.com/the-8-defining-stages-in-the-history-of-consulting/> s.d.);
 (book : The Origins of Modern Management Consulting, Christopher D. McKenna s.d.);
 (<http://parisinnovationreview.com/articles-en/a-brief-history-of-strategy-consulting> s.d.)
³ ((consultancy.uk) s.d.)

We will now explain each of them: The most cited typology worldwide - and therefore the approach we will follow is that of the consultancy.uk who cite that they have drawn their analysis and statistics from ALM Intelligence.

4.1 Strategy Consulting

A strategy is defined as “a plan with the aim of realizing long term goals”, the organizations regularly engage with strategy consultants to help them in developing and implementing business strategies.

Therefore, we can conclude that strategy-consulting domain focuses on supporting private sector clients with the development of corporate, organizational or functional strategies and helping public sector organizations and institutions with economic policy.

As the picture, bellow shows the market for strategy consulting services includes eight disciplines: Corporate Strategy, Business Model Transformation, Economic Policy, Mergers & Acquisitions, Organizational Strategy, Functional Strategy, Strategy & Operations en Digital Strategy.



Figure 1-2:Strategy consulting services

Source : consultancy.uk

4.2 Management Consulting

Is often referred to as business consulting, is defined as “advisory and/or implementation services to the (senior) management of organizations with the aim of improving the effectiveness of their business strategy, organizational performance and operational processes”. They defines management consulting as the sum of three service areas. Strategy consulting,operations consulting, and HR consulting.

Management consulting includes many services one of them is supply chain that we will explain later

The next figure represent the main services of management consulting:



Figure 1-3: Management consulting services

Source : consultancy.uk

4.3 Operations Consulting

It focuses on spanning supply chain, finance, operational performance, procurement and outsourcing. It is defined as advisory and/or implementation services that improve a company's internal operations and performance in the value chain. Operations management consultants help with the implementation of changes by advising on and supporting different services, however we list eight disciplines: Organizational Operations, Sales & Marketing, Supply Chain, Sourcing & Procurement, Finance, Business Process Management, Research & Development and outsourcing

We can see once again that supply chain is a part of here as a service of operations consulting so it has become important to explain it as well.



Figure 1-4: Operations consulting services

Source : consultancy.uk

4.4 HR Consulting

It revolves around human resources matters and/or offerings aimed at the HR function or what we call HR management (HRM) used in implementation activities related to the management of an organization's human capital.

HRM involved a variety of services starting by overarching work on human capital strategy to the design and deployment of a compensation framework down to the transformation of the Human Resource function.

We count eight main disciplines: Human Capital Strategy, HR Function, Compensation & Benefits, Talent Management, Organizational Change, HR Analytics, Learning & Development and HR Technology.



Figure 1-5: Human resources consulting services

Source: consultancy.uk

4.5 Financial Advisory

Based on services such as corporate finance, restructuring and actuarial services which build on a strong financial analytical fundament. It includes variety of topics, such as risk management, tax advisory transaction services, real estate advisory, compliance and litigation services to name a few.

The market for financial advisory consists of eight main disciplines mentioned in the following figure:



Figure 1-6: Financial advisory services

Source: consultancy.uk

4.6 IT Consulting

It refers to technology services designed at improving and managing the IT-infrastructure of an organization, it is relates to services that help clients in the use of information technology (IT) and digital to optimally achieve their business goals.

The market for IT consulting services consists of eight main disciplines shows in the figure:

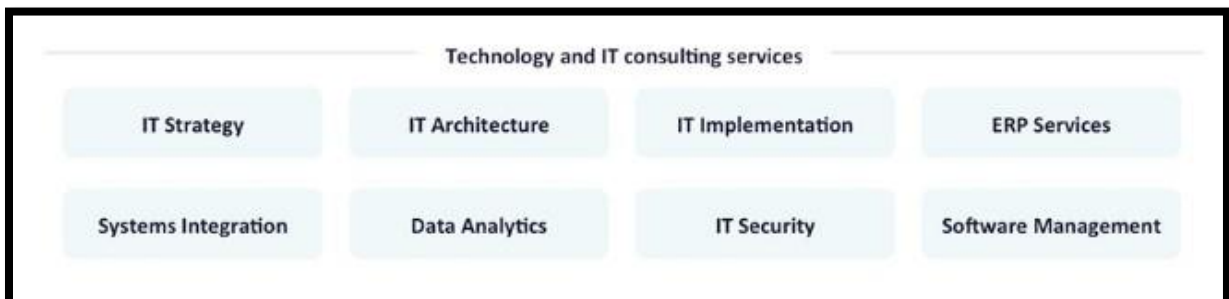


Figure 1-7: Technology and IT consulting services.

Source : consultancy.uk

5. Global consulting market

After talking about the consulting services, we are going to speak briefly about the international consulting market

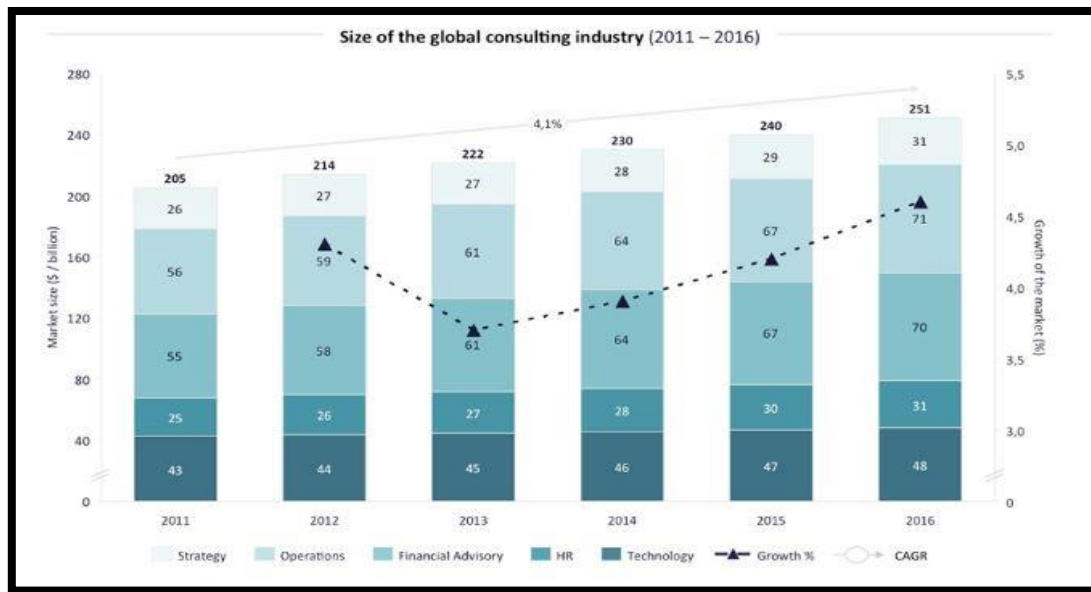


Figure 1-8: Size of the global consulting industry

Source : consultancy.uk

First, you should know that the global consulting sector is one of the largest and most mature markets within the professional services industry.

For last few years, the global consulting market has been growing at different rates. With a total value of around \$ 250 billion.

The following statistics are taken from is taken from Consultancy.uk gathered from different statistics firms:

“Between the 1970s up the 1990s the global consulting market grew every single year, despite the two recession periods (early 1970s and 1973-1975), fueled by high demand for strategic services and operational management. In 2002, the sector for the first time in decades faced a contraction, followed by an even larger downturn between 2009 and 2011, in the slipstream of the global financial crisis.

In 2011 the consulting industry was valued at \$205 billion, and since the market has grown with an average Compound Annual Growth Rate (CAGR) of 4.1% to a value of \$251 billion in 2016*. The largest segment is Operations Consulting, which accounts for nearly 30% of the market, followed shortly by the Financial Advisory segment. Strategy Consulting – the most prestigious segment in the industry – represents less than 15% of the market, and is, in terms of size, comparable to the HR Consulting domain. Technology Consulting also referred to as IT consulting, holds a 20% share of the overall market.”



Figure 1-9: Global consulting market per segment and region.

Source: consultancy.uk

“For many years globalization, consolidation, developments in laws and legislation, efficiency and technology have acted as the main growth drivers of the global consulting industry. More recently, digital and business model disruption has surfaced as the driving factor behind growth, in particular in the more mature markets.

Across the board, the North American consulting market is regarded as the most mature region globally, however, the EMEA region – Europe, the Middle East and Africa – lead in terms of market size, holding a 41% share of the overall consultancy economy. The US is by a distance the largest national consulting market, with Canada taking just a 7% share of the North American market. Asia and Oceania, with Australia as the most important consulting hub, accounts for around 16% of the industry.

In terms of growth momentum, Asia Pacific leads the pack, together with other emerging economies, while the EMEA region and North America on average are booking CAGR growth rates of 3.6%.⁴”

6. External vs internal consultants

We cannot discuss consulting and not make a comparison between the external and internal consultants to understand how companies choose between the two and what are the main reasons taken into account in making a final decision.

An internal consultant is, at first glance, similar to an external consultant: an expert who is hired to solve an organizational problem and implement solutions to improve an organization's performing.

As with external consultants, their internal colleagues, sometimes in competition with each other, can also act as advisors, change agents, implementation facilitators, coaches or trainers.

⁴ ((consultancy.uk) s.d.)

The difference lies in the relationship with the client organization; internal consultants are either salaried or limited to a full-time consulting role within an organization.

It is possible and sometimes preferable to use external consultants when a large project requires in-depth specialist knowledge or when neutral and independent advice is needed to solve a problem. Sometimes a company simply does not have sufficient internal capacity to address a specific challenge, or the board of directors needs external expertise to properly assess the risks of alternatives. Internal advisors, on the other hand, have in-depth knowledge of the organization and, for example, are aware of what is going on within it - because they speak the language of the organization and understand the culture of the professionals working there. On the other hand, hiring an independent consultant may be more expensive, whereas an in-house consultant, from an expense perspective, may be the best choice. In-house consultants also allow for a quicker transition to a higher gear within the company, if necessary⁵.

7. Fees and rates

Consulting firms worldwide are systematically audited for the fees they charge their clients. In particular, the very high hourly rates charged by the most prestigious consultants in the market tend to provoke debate. The fundamental question is: what are the fees charged by consultants?

Consultancy firms - especially the big 4 - do not revolve their fee structure. Consultancy firms consider their fees as one of their main competitive advantages and therefore manage their fee structure as a "trade secret", in the same way as salaries, which are also shrouded in secrecy. Moreover, prices generally vary according to region, client or service offering, so that firms keep close control over their fee structure in order to minimize the threat of reputational risk, public debate or the need to renegotiate their fees with clients.

As a result, there is relatively little information available to the public about the fees and rates charged by consultants. However, that rate can vary considerably, from an hourly rate of £50 per hour for an interim consultant working at the operational level to £300 or more per hour for a consultant in a leader of strategy-consulting firm⁶

8. Industry of consulting:

8.1 Consultants do everything:

Consulting is a multi-faceted and breathtaking career it can be all sorts of different activities and as a consultant, your focus is on solving issues across many different sort of industries.

⁵ ((consultancy.uk) s.d.)

⁶ ((consultancy.uk) s.d.)

The type of dilemma you can do can include things such as scope out new opportunities: the consulting relief organizations rethink their business, identify ways both now, and grow further in the future it can also detect problems and find the solutions to their problems .

Many consultants spend a large part of their time diagnosing the cause of the organization's biggest challenges and providing tailor-made solutions to these challenges.

Then the last thing can be just to ameliorate performance of organizations, consultant increase their efficiency or help them come up with innovative new products and services.

It varies completely depending on the industry you work with and the type of consulting organization you work for.

In the kinds of industries really run the gamut; they can include primary sector industries: we are talking about mining, forestry and agriculture; hires consultants help them plan what they should do; and then there is light and heavy manufacturing like aerospace companies, consumer packaged goods petro-chemical and any manufacturing ever exist. As well for public and private services, we have health care, financial services and education.

These nine examples only scratch the surface; they can also include much public sector work for large multinational NGOs, educational work in collaboration with the governments of large countries to help them plan a public policy strategy

8.2 Consultant's life

They many additional benefits and some drawbacks that comes with being a consultant ,as consultant you will have the opportunity to do exciting, challenging and diverse work you will work with very successful smart people passionate at answering problematic ,earn a very high salary and appreciate rapid career progression and you will get to travel all over the world .

The statistic say “Many consulting firm pay for their employers for graduate studies if it adds value to their expertise. For example in US the average consultant starting salary is 88 K \$ and can go up to 3M\$ for partners /year and the promotion happens every 2-3 years”

It means, if you are a person who like fast-paced challenges consulting can very be for you.

However, you will often have to operate your job for very long hours also spend lot of hours away from home, navigate through a project without knowing what next: that is why each day in the life of consulting is completely different of the day before.

You have to get used to high-pressure environment the truth is: as advisor, you have to work under a lot of pressure to deliver your results quickly

Data collected say, “A consultant workweek can be average 50 h to 70 h but it really can vary by where you work (the firm), the type of project you are working on”.

Moreover, practically people you are working with who are the leadership on the scheme and what are their expectation in terms of the amount of work that to be done by you.

8.3 Consulting offers

Consulting sector offers a variety of attractive outing opportunities: regardless of whether persons attend at an analyst consultant, manager principal or any partner level consulting experience provides them with unparalleled exit chances; we are talking about things like:

Leading a big company: few professions will coach you leadership and entrepreneurial skills as deeply as consulting, data analysis shows that “X-consultants are more likely to become a fortune 500 CEO then folks after any other profession,

In addition, if you look at the world of very influential companies and well-known startups; former consultant founded many of them: Like Microsoft, Google and Facebook former consultants are leading all of them.

Go ahead and do whatever inspires you: the way you work in consulting and the skill set that you will gain is recognized and respected throughout industries functions and borders.

Consulting firm alumni networks have tens of thousands of members worldwide, many of them are running these large influential companies and could provide you the chance to join these organizations but even beyond that, now the advisory experience is a calling card to get into any country in the world.

In other words :The consulting is operate all over the globe so the fact that you’ve gained this knowledge the fact that you have this training you will be respect no matter where ever you go

The skills and the experience you achieve are going to allow you to join whatever industry you are entering in a high level, better paying position as opposed to if you had not that consulting experience.

There is a basic rule about the progression of a consulting employer that says, “The rule of thumb is often that one year in consulting is worth three in industry practically because you get real exposure to senior executives and the work is very intense”.

That’s mean the consultants are always changing , they are learning new things all the time there’s never a point or a moment in their consulting career where they feel they are learning all they can learn ,because as soon as that point is arises the firm is going to provide them with an innovative different challenges .

That what really accelerate their progress up that organization ladder when you leave to go to house or into industry.



Figure 1-10: A Day of consultant

Source :CaseCoach platform

8.5 Consulting firms

They are many consulting firms to choose where to work, its focus on diverse aspects of what consulting firms do:

They differ in a size, the types of projects they take and on the industries that they specialize in.

Many consultant firms work across many industries but some of them are truly specialized in particular areas. However, they all offer opportunities to solve big problematic and to work with engaging persons.

The one universal item across all consulting firms is that the people you work with will have interesting ambitions, educated smart and know how to solve problems.

As we will see later, it is one of the key ingredients to getting into consulting and it means that when you are in consulting, is what you are going to find with your peers.

8.6 Consultants

For who consulting is made for?

The consulting is a good choice or let us say fit for folks with three main qualities really doesn't matter in witch organization is in subject about whether they are very huge or very small ,they have wild range of clients ,they are specialize in particular industry ;every consulting firms need and look for candidates that show particular talents :

a) Achiever:

Achiever is someone who has driven, stamina (endurance) than can perform under pressure, who is adaptable and resourceful, and in fact, what they are asking here is whether you have to drive necessary to be able to succeed even in very difficult high pressure environment?

Are you the type of person that will push yourself to move to the next level without necessary being asked to do so, without waiting for someone to tell you what to do ? Moreover, would you adapt and be resourceful and try to figure out a solution to the problem?

b) Leader:

In terms of leader, they are looking for someone who can communicate effectively, can prove empathy.

Empathy is a very important and essential skill set, as a consultant, you are part of many working teams, you do a lot of work with clients so being empathic to their questions and what it is they are struggling with is going to be very significant.

You are definitely going to want to be able to motivate and inspires others, the question here and that the consulting firms face when they are looking for applicant is that if he has the potential to be a leader.

c) Problem solving:

Last, serenely not least being great consulting means that you really enjoy solving problems not just thinking about them but also coming up with creative resolutions and synthesize the information.

It has not just to have a great answer for the complications but it is also to communicate that answer well, and in a way, that the message gets people interested in moving forward with the answer you provides.

The real question at this point is what do you seek out, looking for and excel at solving problems, are you the type of person that is always thinking all the time about how to improve the situation you find yourself in : do you live by solving problems.

Well that is the type of person that consulting firms are looking for, people who are passionate and very good at solving problems coming up with those creative answers and solving problems in a structural way.

Now if we have convinced you that the consulting is a good job for you, what do you have to get a job in consulting sector?.⁷

⁷ (CaseCoach platform s.d.)

8.7 Get a job in consulting

If now we are convinced that consulting is a good job, what do we have to do to get a job in consulting?

Unlike many industries, the process of getting a job in consulting sector is a much more rigorous.

It is not just throwing a resume for an interview just to make sure you are not crazy and each of them required some amount of effort, they are four serious steps that you have to do to break into the industry.

d) Step 1: is to decide: you have to decide if you really want to be a consultant. Moreover, where are you interested in applying?

What are we doing here? You will research the industries, the diverse firms out there, and why not meeting with consultants who work at these firms.

After that, you are deciding which firms to target once more it very hard to get into consulting firms It will therefore important to have a clear plan of attract a clear strategy on how are you going to enter.

e) Step 02: you have to prepare both for the application but for the interview process.

For the Preparation: This phase is crucial you must not only recognize the qualities that candidates need to demonstrate but also be able to show that you have those abilities ,you must learn different part of interview process and what is the greatest approach to each part of it .

You have to provide practice; the key of this is making sure that you do these live practice interviews with peers and consultants.

We can say it is a lot of work to prepare for consultant interview.

Then it is time for application: the process of applying involve networking in order to really understand what the target company is looking for to build and develop an application that reflects how you fit with the firm and why you are interested in applying there and obviously to be selected doe an interview.

f) In step number 03: is the application itself.

g) Step 04: is the interview and Let's dig into details a little bit more.

The interview therefore is a series of multiple interviews rounds. Often six more rounds of hour-long interviews showing how you adapt with that firm's culture but also how you are able of problem solving like a consultant and obviously, what you are really aim for when

you get the opportunity to receive an offer and go and work in the consulting firm of your dreams.⁸

9. Consulting virtualization

During the 1980s and 90s, the demand for strategy and organization consulting developed rapidly. Meanwhile, the need for IT advice and expertise grew exponentially. Both the number of consultants and their range of activity exploded, spreading out into Europe, Asia, and South America.

However, the rise of IT industry in the economic and business field required consequently creating a new type of consulting opening a new market for consulting firms.

Yet, this was not clear until mid-1990 where IT became a necessity worldwide, where The Big Four seized the opportunity they expand their IT market, mainly they helped companies to implant “Enterprise Resources Planning” (ERP).

In the 20th century, people were more open to IT, they went from the first pc, first mobile phone, getting internet to being exposed to a variety of IT designs and searching for the most modern and innovative devices.

Due to the massive rise of IT and the impressive adaptation of it by people, companies were obliged to follow the trend in order to satisfy the customer and to provide their presence in the market⁹.

Most of them started by creating a web page where they present their products and their services with the rest of basic information, this process acquired Design and IT consultants in order to guarantee this step.

In the past 10 years Digital consulting has rapidly expanded, Consulting firms took a step by entering the market of IT consulting, and took a second step when providing their consulting services online, by email and providing distance advisory using live broadcast of direct contact with a virtual consultant¹⁰.

Nowadays, virtual consulting is an ever-important piece of a corporate strategy to succeed and grow, instead of doing it in person or by phone, virtual consultant can provide his services in different locations or time zone and another continent. In fact, big firms no longer offer virtual consulting only, actually not even by a firm or a company, thanks to the advance of technology and mainly to internet, anybody with a skill or a knowledge in a certain domain no matter how far he has well at it can be a virtual consultant.

Using your personal web page or using one of the online consulting websites, you can offer your services as a consultant with a price of your choice and work at the time you want with no diploma needed, this what is called “FREE-LANCE”¹¹.

⁸ (VOCAPREP PLATFORM s.d.)

⁹ (<https://www.forbes.com/sites/falgunidesai/2016/03/23/the-rise-of-digital-consultancies/#19904c7a6a79> s.d.)

¹⁰ (<https://www.integritymcg.com/what-is-virtual-consulting.html> s.d.)

¹¹ (<https://www.infodesk.com/consulting-industry/the-rapidly-growing-field-of-digital-consulting-a-snapshot-of-recent-industry-initiatives/> s.d.)

10. Conclusion

In the following chapter, we will present the second essential field of our research to define other concepts related to our subject, in order to make the link between the three main sectors: consulting, supply chain management and freelance.

The identification of different problems across different industries and requires special expertise, this expertise must also touch the qualities of the consultants required which form a common point between them wherever they work and which constitute the key to enter this industry.

In the following chapter, we will present the second essential field of our research to define other concepts related to our subject, in order to make the link between the three main sectors: consulting, supply chain management and freelance.

2 Chapter 02: Freelance the rise of GIG

Economy

1. Introduction

Technology has improved our production systems, our delivery systems and our communication system, mainly, humans has introduced technology into our lifestyles to optimize time and money, and in today's fast moving world, time has become money in it litterer meaning, people now are no longer willing to waste their time sitting on a desk all day long being unproductive, technology has offer them the power to control witch time they want to work, for how long and where to get the work done.

This magical power is called "Freelance", freelance has become a choice of life for people around the globe, many have made a fortune just by sitting home using a laptop, big counties economy has made a huge jump up the scale by considering freelance as a profession. In this chapter we will introduce you to freelance, how it rose and why freelance is the future of work-life.

2. Definition

a) dictionary definition:

Freelance:

/ˈfri:lɑːns/

1. Self-employed and hired to work for different companies on particular assignments.

"A freelance journalist"

Adverb

1. Earning one's living as a freelance.

"I work freelance from home"

Noun

1. 1.

a freelance worker.

2. 2.

HISTORICAL

A medieval mercenary.

Verb

1. Earn one's living as a freelance.

1. "He **freelanced for** the BBC and regional companies

b) Extended definition

A **freelancer** is a self-employed who have the freedom and the flexibility to choose time of the day to work on, how much work he can take, a location where he works. Basically, being a freelancer, you can control your work relationship and workload.

Freelancer professionals are traditionally hired by a company or a person using a short-term contract to perform a specific project or task in a limited period of time and get paid based on their ability to complete it.

3. History

freelance in a new term for an old existing profession, ages ago people used to accomplish different tasks in different domains for others and get paid for it, those workers had no specific career they

worked in every field, in mid 80s they were called “**the boundary-less career**” the origin of this names goes back to the fact that they had no boundaries when it come to the type of work they do, and that they don’t work for any organizational structure.

The term has been created in 1986 and since then the old typical picture of a stable employment and an organizational career is fading, and the boundary-less career is taking over people’s attentions.

Firms and regular employees have ever considered boundary-less as a threat on the labor market and the economy, until recent decade when technology stepped in to take it from a threat to creating a new market and having a positive impact on economy, in fact companies now would hire a freelancer to accomplish the job rather than hiring a long term contract employee.

In 2009 an Australian group created the first freelance website called “freelance.com” providing a marketplace for boundary-less workers who used to get jobs by knocking doors and hanging posters on walls, to offering their services online.

Many websites were created after that, these platforms, named startups are virtual companies that works as an intermediate between the job offer and the job seeker, however the expand of the freelance wave is mainly associated with the massive growth of IT market, freelance websites has helped with the legality, the transparency of this activities and most important it led to the recognition of freelance as a real career.

Not only that, in another hand, freelance companies are giving chance to anybody around the world to have a career and get good money, all what it takes to be a freelancer is a PC, a good internet connection and a skill, however a bank account is necessary to receive the payment.

4. Worldwide statistics

Going back to what have been said above, freelance has created a new market so as consequence, it created a new economy called “**GIG Economy**”.

Researchers define GIG economy as an economy based on flexibility, temporary or freelance jobs often involving connecting with clients or consumers through an online platform. It can benefit workers, businesses and also consumers by making work more adaptable to the needs of the moment and demand flexibility life style.

To be more credible here is a collection of statistic established by big firms that confirms the impact of freelance of the world economy:

- Almost 30 million freelancers are long-term oriented.
- 31% of freelancers earn \$75,000+ a year.
- There are 57 million freelancers in the US.
- Working from home improves performance by 13%.
- 30% of freelance writers make under \$10 per hour during their first year.
- Men make 4 times more money than women.

- 91% of freelancers think the future of the profession is bright.
- Half of the working US population will turn to freelance work over the next five years.

Based on studies established in America and Europe:

a) 57 million Americans are part of the gig economy

The rapid progress of companies like Uber, eBay, and Freelancer.com has given people the opportunity to work part-time or do side hustles. Essentially, these workers have become part of the global gig economy which offers greater flexibility than traditional jobs. The popularity of freelancing has increased in the past few years and today more than 36% (or 57 million) of US workers are part of the free-market system¹².

b) Freelancing is most popular in Europe

So, how many freelancers are there in the world? While there is no exact number, the stats show that this type of working is most popular in Europe where 35.5% of the freelancing community is located. Next come Latin America and Asia with 29.2% and 28% concentration of freelancers, respectively. The African continent accounts for 10.1% of freelancers worldwide¹³.

c) 73% are looking for a job on dedicated internet platforms

The majority (73%) of freelancers are looking for and finding jobs on some of the internet platforms specially made for this. Freelance statistics further show that with a total of over 50 million users, Freelancer.com, Upwork, and Fiverr are the most popular platforms for finding a job. Another 33% of freelancers find work through referrals, 15% use social networks, and 14% do this through business-oriented networking sites such as LinkedIn¹⁴.

d) Almost 30 million freelancers are long-term oriented

Freelancing is not just a side hustle but a career choice. In fact, 28.5 million American freelance workers are now long-term oriented. This marks a rise from 2014 when only 18.5 million freelancers considered working for themselves a career option¹⁵.

e) 30% of Fortune 500 companies are hiring through Upwork

With around 12 million people looking for a job and over 5 million more who are there for freelance job postings and looking for workers, Upwork is one of the biggest freelancing bases in the world. The latest statistics suggest that many big companies (30%) looking for skilled people for their needs often find and hire the perfect candidate on Upwork¹⁶

¹² (Forbes s.d.)

¹³ (Medium s.d.)

¹⁴ (WebsitePlanet s.d.)

¹⁵ (Upwork s.d.)

¹⁶ (Forbes s.d.)

f) Access to affordable healthcare is the number one concern for freelancers

Access to affordable healthcare is the predominant concern for 22% of freelancers. Unpredictable income and retirement savings are major issues for 19% of freelancers. Other notable concerns are being paid a fair rate, high taxes, and the possibility of going into debt¹⁷.

g) Half of the American freelancers are getting paid on a fixed amount

As freelance stats show, around 48% of all the completed gigs were paid after both parties agreed on the amount in advance. 29% were paid by the hour and the balance was a combination of both categories, hourly and based on a fixed amount¹⁸.

h) 31% of freelancers earn \$75,000+ a year

Freelancing can be an excellent source of income. In fact, one-third of US freelancers earn \$75,000 or more which is up from 16% in 2014¹⁹.

2.

- **Freelance Workforce Statistics**

i) Every seventh freelancer in the UK is a mother

A freelance industry report shows that over 300,000 moms in the UK work as freelancers. That makes every seventh person working in the industry a mother of at least one child. This type of work makes it perfect for parents as they get to take care of their kids and work at the same time²⁰.

j) The gender gap is present: Men make 4 times more than women

Female freelancers make less money than male freelancers. A SlashWorkers study has shown that while women make \$25,000 on average, men can go over \$150,000 a year for the same position. That's a difference of 4.5 times in favor of men²¹.

k) 24% of freelancers hold a bachelor's degree

Freelancing statistics further show that 24% of freelancers hold a BA while another 16% also have a post-graduate degree. That makes 40% of highly educated professionals, as compared with 39% for traditional workers in both of these categories. The number of freelancers and traditional workers with some college or Associate degree, and high-school degree is 26% and 34%, respectively²².

¹⁷ (WebsitePlanet s.d.)

¹⁸ (World of Freelancers s.d.)

¹⁹ (Forbes s.d.)

²⁰ (IPSE s.d.)

²¹ (SlashWorkers s.d.)

²² (Statista s.d.)

l) The share of full-time freelancers is 28%

Freelancing is becoming an increasingly popular long-term career choice as opposed to just a temporary solution for some extra cash. As of 2019, 28% of freelancers are working full-time, marking a notable increase from 17% in 2014²³

m) 45% of freelancers provide skilled services

Freelance facts from Upwork's most recent study show that nearly half of freelancers are skilled professionals providing services in marketing, programming, IT, and business consulting²⁴.

n) Generation Z is more likely to freelance

Freelancer employment is a thing for younger workers. In fact, Generation Z is the largest freelance workforce group — 53% of those aged 18-22 freelanced in 2019. Millennials (aged 23-38) are next with 40%, while Gen X workers (aged 39-54) follow with 31%. The smallest generation group among freelancers is Baby Boomers (aged 55+) with 29%²⁵.

- **Benefits of Freelancing Employment**

o) 64% of people think that freelancing has given them better working opportunities

Freelancing is an excellent option especially for those who otherwise might not be able to work a traditional job because of circumstances. 64% of freelancers say the job has given them the opportunity to work and make money to live just like the rest of the working world. Freelancing has given them the chance to make their lives better²⁶.

p) Freelancing helps with improving the work-life balance

Remote working statistics show that an impressive 77% of all who started freelancing have felt an improvement of their work-life balance. They say they have more time for friends and hobbies, and are generally able to do more in their lives. More than half admit that they won't go back to the traditional way of work under any circumstances²⁷.

q) Employers make better profits by hiring freelancers

Profit is the number one reason why more and more companies nowadays hire outside workers. The estimates say that the average cost for workers benefits is around \$11 per hour. With a freelancer, this money can be deployed elsewhere. Freelance economy statistics further show that with freelancers, the employer will pay for the work done which would save them money

²³ (Upwork s.d.)

²⁴ (Upwork s.d.)

²⁵ (Upwork s.d.)

²⁶ (CNBC s.d.)

²⁷ (Planet s.d.)

in the long run. On top of this, there are no expenses for healthcare, paid leave, life insurance, and other benefits²⁸.

r) Working from home improves performance by 13%, Freelancing equals less stress

The comfort and sense of relaxation that freelancers have when working from home lead to enhanced productivity. This is supported by the fact that companies relying on freelancers have seen a profit increase of \$2,000 per freelance worker²⁹.

Freelancing statistics show that people who work from home at least once a month are 24% more likely to feel less stressed about their jobs. The sense of greater control over the work environment and schedule, as well as the lack of a commute, are some of the factors that helps freelancers feel more relaxed. As a result, these employees are more motivated and have higher morale³⁰.

- **Traditional vs. Remote Freelance Jobs**

s) Freelancers are 21% more satisfied with their position than traditional workers, Traditional employment has a higher chance to get you sick.

The average traditional American freelancer is satisfied 63% of the time, while freelancers who work long-term are satisfied by the position, they are at 84%. What is more, 61% of those who freelance say that there's no money that will make them do the standard 9 to 5 work ever again. Work at home statistics suggest that 64% of people who freelance have noted a health improvement when they quit their standard job. This is not a surprise considering that freelancers are freed from exhausting commutes, the stress of corporate life, and more³¹.

t) The Future of Freelancing

a) Estimates say that half of UK workers will be self-employed by the end of 2020

More and more people enjoy completing tasks at their own pace. Also, they tend to be more valued in the workplace for their expanded networks and ideas. These are one of the main reasons why by the end of the next decade, more than half of the entire working-age population in the UK will be self-employed³².

b) More than 50% of the working US population will turn to freelance work over the next five years

The US will see an expansion of freelancers with 50% of the working US population expected to either try or transition to freelancing by 2024. Statista's freelance predictions show that this

²⁸ (Medium s.d.)

²⁹ (Stanford Graduate School of Business s.d.)

³⁰ (OWLLabs, APA s.d.)

³¹ (Forbes s.d.)

³² (Small Biz Trends s.d.)

trend will continue and by 2028 there will be 90.1 million freelancers compared to 57.3 million in 2017³³.

c) 91% of freelancers think the future of freelancing is bright

The vast majority of freelancers feel optimistic about the future. 67% of full-time freelancers expect their income to increase in the next 12 months while 91% are confident that the best days are yet to come. In 2014, 77% of freelancers felt that the freelancing future is bright³⁴.

5. Freelance categories:

The following information are taking from the website: flexjobs³⁵

5.1 Writing

What They Do: Every organization needs a good writer to write messages and mails to keep communication between a company and the world. Writing is a popular freelance choice, with the BLS reporting that 61% of writers are self-employed.

5.2 Computer & IT

What they do: they solve software issues and building operating systems.

5.3 Software Development

What they do: design and maintain websites for businesses and create programs for businesses. The Bureau of Labor Statistics (BLS) predicts that job growth from 2018 to 2028 will be extremely strong with a 21% growth rate (much faster than the average 5% rate for all other jobs).

5.4 Accounting & Finance

What they do: involve the processing of financial data, organizing records, handling accounts payables and receivables, and assisting with tax preparation. The job growth outlook for careers in this field depends on what role you choose. According to the BLS, financial analysts will see 6% growth and personal financial advisors will see 7% growth.

5.5 Project Management

What they do: Project managers develop requirements, budgets, and development and production projects.

³³ (Statista s.d.)

³⁴ (Upwork s.d.)

³⁵ (<https://www.flexjobs.com/blog/post/10-top-freelancing-job-categories-v2/> s.d.)

5.6 Administrative

What they do: people who work as administrative staff provide an important role to their company as they manage communications, handle personal matters and oversee busy teams.

5.7 Online Content

What they do: involves the written and graphic content that appears on websites and online advertising, entertainment, and corporate sites. Skills needed for working in online content can include writing, graphic design, SEO, SEM, editing, marketing and social media.

5.7 Education & Training

What they do: they are facilitators to learning by using virtual classroom or individual instruction to help students learn complex subjects. The BLS expects this career field to grow 5% over the next 10 years.

5.8 Medical & Health

What they do: involve working in health sciences or healthcare, providing medical research and services, or lifestyle management. Many health occupations includes giving medical care or support to people, as well as complimentary health information services like insurance, billing, coding, transcription, and scheduling. The BLS projects a much faster than average growth rate for this field, at 14% growth.

5.9 Editing

What they do: an editor job is making sure copy reads well, aligns with the company's mission, and is free of errors. This popular freelance category has 14% self-employed workers, according to the BLS.

6. The trend of freelance: “everyone is freelancing”

Commonly said “freelance is for jobless people” is no longer a truth, actually many freelancers are ex-employees, or can be both, an employee and a freelancer on their free time. Freelance became a wave that everybody wants to follow, or how Upwork likes to call it ‘freelance movement’ referring how people are changing the economy by having freedom and flexibility so everyone has the right to choose and customize his career.

All generation are joining the movement, elders use freelance after retirement to sell experience and knowledge also in 2019 a study showed that generation Z (referring to people born in 90s and early 20th century) are the driven force helping the growth of freelance, in a report for the

website Upwork in 2018 showed that 46% of generation Z are freelancing, In fact 78% of them have chosen freelance as a career path willingly.

Moreover, the reason why freelance came out to the world as a profession, technology, is doing nothing else than pushing it to grow. Technological advances allow people to promote their services worldwide expanding their market through a custom web-page and social media profiles, even small companies can manufacture their goods in continent and ship them globally thanks to advanced logistics.

Another reason why freelance is growing is the work hourly volume in old typical jobs, the 40hr per week is mandated by the fair labor standards act in 1940, 80 years later and the companies still using this model although the technological changes, people are now looking to a flex-schedule that help them balance and adapt work with the lifestyle they want.

Also, freelance spots the light on the person's skills and knowledge and nothing else which helps both sides, companies and professionals, when it comes to companies, they look up the hire the best talent for their projects and to get the job done in less time and money possible.

In turn, freelancing professionals have more control over their career, schedules, and workload. According to a survey in the United States, 84% of respondents say that having a flexible schedule is **the top benefit of freelancing**. It's been projected that skilled freelancers earn per hour than 70% of U.S. workers. With all of these benefits, freelance work is appealing to more and more people, we can say that freelance is a win-win for both sides.

Freelance, as consulting, is one of the fastest growing industries in the world, according to a study in the United States, experts are predicting a growth projection of 3.5 percent-year-over year, expectations that by 2027 the workforce majority will be freelancers

7. How does freelance work:

as mentioned previously , freelance websites are a marketplace where both people looking for a job and employers post their offers; so in order to understand how does the algorithm works we must put ourselves as if "I want to hire" profile and as "I want to work" profile .

The next explications are adopted from the website freelance.com³⁶ the biggest freelance platform from the section: How does it work.

I want to hire:

How does it work?

³⁶ (www.freelance.com s.d.)

a) Post a Project

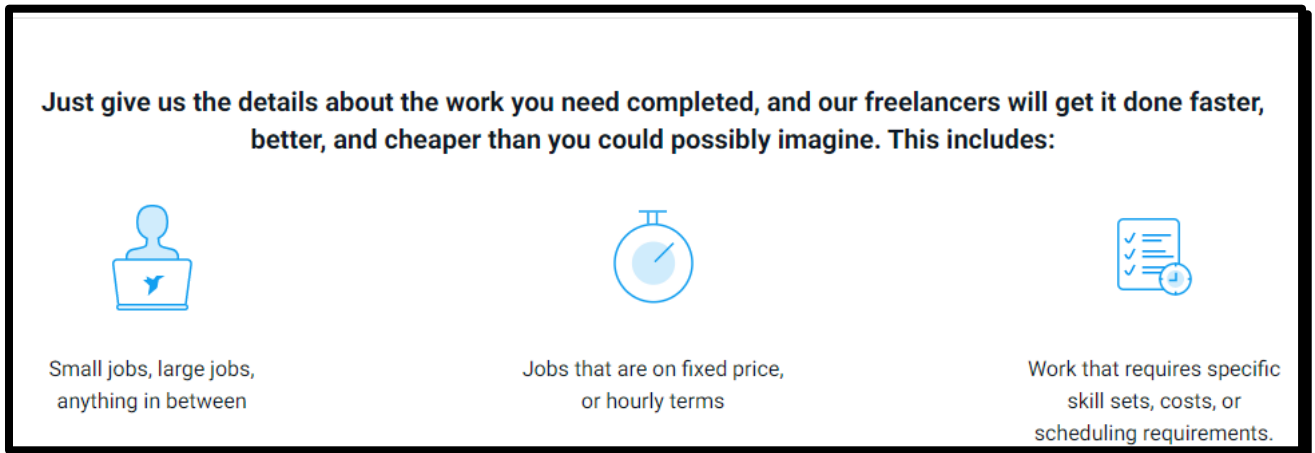


Figure 2-1: How its work

Source: UpWork.com

It is always free to post your project. You'll automatically begin to receive bids from our freelancers. Alternatively, you can browse through the talent available on our site, and make a direct offer to a freelancer instead.

b) Choose the perfect freelancer

- Browse freelancer profiles
- Chat in real-time
- Compare proposals and select the best one
- Award your project and your freelancer goes to work

c) Pay when you are satisfied!

Pay safely using our Milestone Payment system - release payments according to a schedule of goals you set, or pay only upon completion. You are in control, so you get to make decisions.

7.2 I want to work:

How do I get started?

a) Complete your profile

- Select your skills and expertise
- Upload a professional profile photo
- Go through the Verification Center checklist

b) Browse jobs that suit your skills, expertise, price, and schedule

We have jobs available for all skills. Maximize your job opportunities by optimizing your filters. Save your search and get alerted when relevant jobs are available.

c) Write your best bid

Put your best foot forward and write the best pitch possible. Read the project and let the clients know you understand their brief. Tell them why you're the best person for this job. Writing a new brief for each project is more effective than using the same one!

d) Get awarded and earn

Get ready to work once you get hired. Deliver high quality work and earn the agreed amount.

8. Conclusion:

In this chapter we demonstrate by numbers and statistic, how valuable freelance is for worldwide economies and how important is to spread the culture of freelancing in our country in order to help the rise of GIG economy to get a head with the technological changes in the glob and open many opportunities for youth through virtualization.

And we, as part of this generation we're realizing this project to do our part in improving the Algerian GIG market, because we believe the future is one click away.

3 Chapter 03: Supply Chain Management

1. Introduction:

The supply chain and without any doubt the most important element within the company, thanks to its structure which is centered on customer orders it allows to differentiate itself and to have a major competitive advantage with objectives such as: the optimization and reduction of stocks, the improvement of flexibility and reactivity, the optimization of logistics resources ...

In addition, as supply chain management is one of the key concepts in our study, in this chapter we will bring light on this domain, first section is devoted to the definition of the general framework of the Supply Chain and its management, its evolution and its integration. Then we will focus on the 7 principles of Supply Chain Management, the factors which have a major influence on the performance of the Supply Chain and of course the role of the Supply Chain manager; its three main titles directly touch our problematic and allow us to understand the gap between what should be done and how and what we really find in the Algerian market.

2. Definition of SC and SCM

Researchers in the literature proposed several definitions of supply chain management; we collect some of them to introduce our chapter:

According to [2003 / **International Journal of Production Research**], SC can be defined as « a network of facilities that provides the functions of supplying raw materials, transforming these raw materials into components and then into final products, and the distribution of these final products to the customer»

[2000 **18 Maintenance & Enterprise**] «Is defined as the set of companies involved in the processes of component sourcing, manufacturing, distribution and sales of the product from the first supplier to the ultimate customer ».

Christopher (1998) defined the supply chain as the network of organizations that are involved, through upstream and downstream linkages, in the different processes and Activities that produce value in the form of products and services in the hands of the ultimate customer.

Hadfield & Nichols (1999) “A supply chain encompasses all activities associated with the flow and transformation of goods from the raw material stage, through to the end user, as well as the associated information flows”.

A supply chain may be defined as an integrated process wherein a number of various

Business entities like:

- a) Suppliers
- b) Manufacturers
- c) Distributors and
- d) Dealers, Retailers etc.

Work together in an effort to:

- (1) Acquire raw materials
- (2) Convert these raw materials into specified final products, and
- (3) Deliver these final products to retailers.

Recently, there has been increasing attention placed on the performance, design, and analysis of the supply chain as a whole. From a practical standpoint, the supply chain concept arose from

a number of changes in the manufacturing environment, including the rising costs of manufacturing, the shrinking resources of manufacturing bases, shortened product life cycles, the leveling of the playing field within manufacturing, and the globalization of market economies. The current interest has sought to extend the traditional supply chain to include .reverse logistics, to include product recovery for the purposes of recycling, re-manufacturing, and re-use. Within manufacturing research, the supply chain concept grew largely out of two-stage multi-echelon inventory models, and it is important to note that considerable progress has been made in the design and analysis of two-echelon systems. (**Benita M. Beamon**)

Chopra and meindl (2001) “A supply chain consists of all stages involved, directly or indirectly, in fulfilling a customer request”.

Stock and Boyer (2009) defined SCM as “The management of a network of relationships within a firm, and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction”.

2.1 After all, what is a Supply Chain?

"A supply chain is a system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer.

Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer. In sophisticated supply chain systems, used products may re-enter the supply chain at any point where residual value is recyclable. Supply chains link value chains".

The question of what the supply chain is may be another relevant issue. Supply chains cover not only the flow of products and materials at a basic level, but also other areas such as finance, human resources, purchasing, merchandising and strategic planning, among others. They may cover all operations of a company, but in most cases, many other areas are isolated and function as stand-alone departments.

A well-functioning supply chain allows for a smooth flow of goods / services, information and cash between the SC Parties. The importance of coordination and collaboration are key to achieving this.

In most Western companies, the supply chain revolves around the flow of products in and out of a company. Including primarily inventory management and distribution functions, but it is more important than that, because the best supply chains operate across the full range of a company's functions; whether it is a small local company or a global international operator: the name says it all - supply chain- the product or service moves through the different departments of the company, all hopefully working together to improve efficiency and reduce costs, free up cash, improve sales.

The supply chain is the backbone of a modern business. The best performing companies in this recessionary period will be those" that have the most activated and flexible supply chains that can meet the demands of the current economic climate.

The main objective of the supply chain is to increase the percentage of profit between the different organizations connected by the supply chain compared to their profit when they were not connected to a supply chain. If the creation of a profit at all levels of the supply chain is the same as that of a previous profit, it cannot be considered a supply chain. Thus, all activities that need to be managed to improve profit, quality, or any other such parameters fall within the scope of supply chain management.

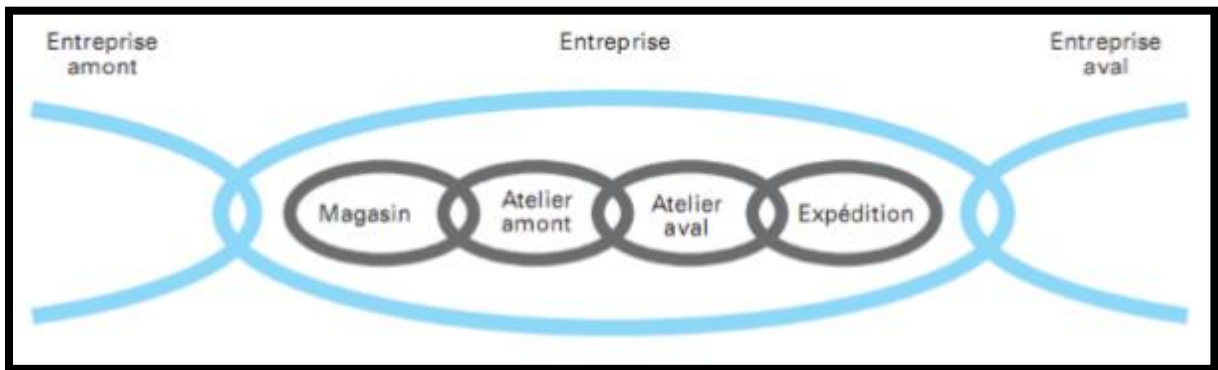


Figure 3-1: Representation of the internal SC

Source: Anderson Consulting

2.2 SCM in a simpler way:

- a) SCM is from supplier's supplier to customer's customer management of information flow, physical flow and cash flow to earn money for a business entity by satisfying customer with safety, good quality/service and competitive cost.

You can interpret it that way "it is management of supplies", but remember supplies start from one part and end with another, both indefensible; the eventual goal is to maximize the total (not individual) profit from the supply chain .

2-A simple definition is the creation and management of the entire supply chain to meet all customers' needs (current and future) and assure the best cost, quality and delivery. SCM cuts across the entire operations of an organization. That is from Supplier's Supplier to Consumers. (i.e. Supplier management, Plan, Source, Make, Move, Consumer management).

3-Supply-Chain Management is thus "everything required to satisfy the demand of customers"

4-SCM is all about the activity and processes that is associated with from Farm to Fork

5- It can also be described as the integrated set of business activities that starts with the purchasing of raw material and continues until the order is delivered to the customer and receipt of payment.

6-Supply Chain Management - The term itself defines i.e. managing the chain of supply from receiving the request from requestor, processing it until the material/services reach the requestor, further requestor is satisfied with received material / services. The entire process to reach and manage up to this stage i.e. from request up to satisfaction of requestor in terms of his request can be termed as supply chain management.

7-Supply chain management is the implementation of a supply orientation between suppliers and customers.

8-Supply Chain Management is the optimal balance between a functional design of multiple connecting departments / systems and proper execution by the workforce, supervised by (operational) managers who keep a sharp eye on both. This is both a definition as the key to success of SCM. It is also a management of supplies at right price, at right time and of a right quality.

9-The definition of SCM is dependent on what a Supply Chain is in the first place. (Obviously, how can someone manage something that he or she does not know and/or understand?) Fundamentally, a Supply Chain is a flow network, where similar entities (plants, dc's, w/h's) are linked together to allow flow of goods, information, and cash among them.

10-Now, what is a Supply Chain the responsibility for and controlling of this group of entities to maintain the flows accordingly? Supply chain management is a combination of the following seven

Interrelated components: supply chain strategy, supply chain planning, supply chain operations, procurement, logistics, product life cycle management, supply chain enterprise applications. Good at managing one or two components cannot guarantee sustainable success in the long run, only those who are adept at managing the integrated whole will survive and become leaders in their industries.

11- All activities that are required to manage supplier relationships.

12-The management of all activities, information, knowledge and financial resources associated with the flow and transformation of goods and services up from the raw materials suppliers, component suppliers and other suppliers in such a way that the expectations of the end users of the company are being met or surpassed

At the end, there is another term that I prefer to leave at the conclusion of this chapter to explain.³⁷

³⁷Source spécifiée non valide.

3. The difference between the Supply chain and logistics

Many people get confused between SCM and logistics, SCM is directly related to logistics but it is not the same: Logistics is effective and efficient management of flow of Goods, Services and info from point of origin to point of destination in both the directions and Supply Chain includes all parties & functions in the chain

Rhonda R. Lummus, Robert J. Vokurka (1999), Definitions described and developed previously and recent industry collaborative activities indicate that supply chain management is not a stand-alone process. Many supply chain efforts have not lived up to the potential benefits, as the term is often considered to refer only to the procurement aspect of the business or the purchasing function. As noted above, supply chain management is much more than just a purchasing Procurement. Among the misunderstanding, evidenced, supply chain management is not:

- Inventory management;
- Logistics management;
- Supplier partnerships;
- Driven from the supply side;
- A shipping strategy;
- Distribution management;
- The logistics pipeline;
- Procurement management;
- A computer system.

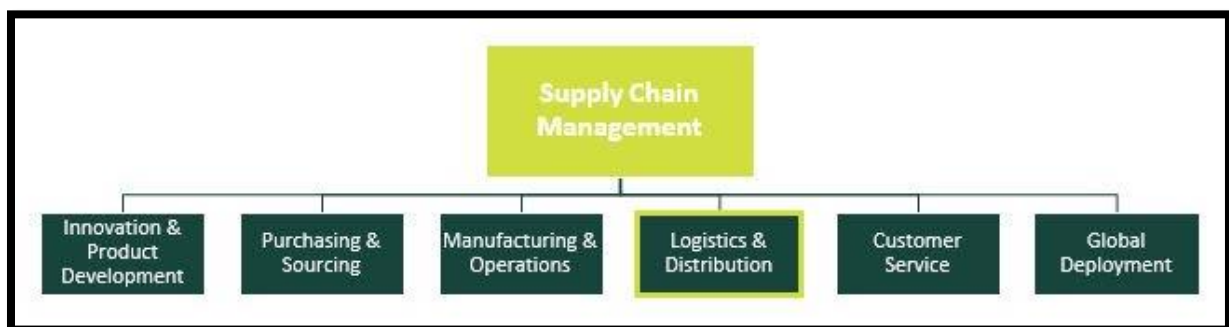


Figure 3-2 SCM parts

Source: Anderson Consulting

4. History of Supply Chain Management

The History of Supply Chain Management can be studied under different eras.

Table 2.1 Era in the Evolution of Supply Chain Management

1	Creation Era	An American industry consultant first coined the term: supply chain management in the early 1980s. However the concept of supply chain in management, was of great importance long before in the early 20 th century.
2	<u>Integration Era</u>	This era of supply chain management studies was highlighted with the development of Electronic Data Interchange (EDI) systems in the 1960s and developed through the 1990s by the introduction of Enterprise Resource Planning (ERP) systems.
3	Globalization Era	This era is characterized by the globalization of Supply chain management in organizations with the goal of increasing competitive advantage, creating more value-added, and reducing costs through global sourcing.
4	Specialization Era Phase - One Outsourced Manufacturing and Distribution	In the 1990s, industries began to focus on “core competencies” and adopted a specialization model. Companies abandoned vertical integration, sold off non-core operations, and outsourced those functions To other companies.
5	Specialization Era Phase Two - Supply Chain Management as a Service	Specialization within the supply chain began in the 1980s with the inception of transportation brokerages, warehouse management, and non-asset based carriers, and has matured beyond transportation and logistics into aspects of supply planning, Collaboration, execution also performance management.
6	Supply Chain Management 2. 0 (SCM 2. 0)	Web 2. 0 is defined as a trend in the use of the World Wide Web that is meant to increase creativity, information sharing, and collaboration among users.

Tableau 1: History of supply chain.

Source: Jinesh Jain, G. S. Dangayach, G. Agarwal, Soumya Banerjee, “Supply Chain Management: Literature Review and Some Issues, Journal of Studies on Manufacturing (Vol.1-2010/Iss.Jain et al. / Supply Chain Management: Literature Review and Some Issues / pp. 11-25

Let 'we dig a little deeper in details, in the earliest of 1950; the company was more focused on itself that because merger and acquisitions were frequent. In other words the company engaged its resources for all the necessary activities from purchasing the raw materials to manufacturing and then distributing products to stockists dealers and retailers.

The goal as always was to product more, reduce costs, sell more and increase profits but all on its own.

The creation of partnership with upsteam companies or downstream operators was not taken into account, as a result, it was considered necessary to maintain large inventories on the shop floor to support mass production!

Since 1960, supply chain has remained the same there have been same, there have been some changes in capabilities but the overall process are basically the same. However, before the 1960s, inventory management mostly meant that when your inventory of a part or product was depleted to a certain point, you would order simpler as that!

After that as competition became increasingly intense in the 1970s, the need to reduce costs became apparent and efforts were quickly made to reduce inventories.

As we the table mentioned the concept of supply chain management was of great importance long before in the early 20th century; its integration is due to the development of the "EDI" "Electronic Data Interchange".

Then came systems, which have been introduced to reduce inventory as Material Requirements Planning: "MRP" witch added some level of integration for supply chain management, and «Manufacturing Resources Planning: MRP2 added to that by including additional resources and people in the planning.

The need for effective materials management has been duly recognized. The advancement of information technology, reflected in the application of complex software, the most notable of which is called Enterprise Resource Planning: ERP towards the 1990s for monitoring and managing stocks via LAN and WAN has become a factor of competitiveness. Concepts such as Just in Time: JIT and Total Quality Management: TQM have helped processing in the production line.

We can say that what we talked about was all the important factors that contributed to the integration of supply chain. Nevertheless, the globalization phase has seen the increase in competitive advantage, the creation of more value added and the reduction of costs through global sourcing.

The development of information technology has further reduced the concepts of national borders. We have found in several articles that the origin of supply chain management dates back to the 1980s where the first mention of the term "supply chain management" was found in a document published in 1982 in the United States.

These years have seen a dramatic transformation in the business scenario around the world due to globalization and liberalization.

Low cost, high quality products and customer satisfaction have become the buzzwords in the industry. The increased dependence on JIT and TQM methodologies has led to the vision of strategic partnerships.

The globalization of markets has also provided an excellent opportunity to reach high-potential global markets.

Specialization on the supply chain management began on 1980, to explain this phase we must first definite the notion of vertical integration. In terms of corporate strategy, the notion of vertical integration is associated with a process of ownership and control aimed at bringing together under a single governance structure all the stages of production and distribution of a product or service, in order to integrate them into the company's own value chain.

In short, this term refers to a strategy that a company implements when it wishes to integrate the activity of one of its suppliers into its own business.

There was a need to review the way in which inventory and logistics were being done, that because challenges related to improving quality, manufacturing efficiency, customer service and new product design and development have also increased.

Industries began to focus on “core competencies” sold off non-core operations, and outsourced those functions to other companies. they adopted a specialization model to address these challenges, manufacturers have begun to purchase from a limited number of high quality, certified suppliers with excellent service reputations and have involved these suppliers in new product design and development activities as well as cost, quality and service improvement initiatives.

Activities have evolved beyond transport and logistics to aspects of procurement planning, collaboration, execution and performance management.

To end this long discussion on the supply chain management history; there is well known new concepts are the supply chain from the supplier of the supplier on the one hand, to the customer on the other.

Moreover, in the future, it is expected that supply chain management will focus on expanding the SC, increasing SC responsiveness and further reducing SC costs.

5. The integration of supply chain:

the supply chain took more time to be integrated into the industry at the beginning and until now the integration is no longer slow, but hard to keep up with the market changes, firms have more complicated challenges to reach to suitable supply chain (top management), this last one know a little different constraints since a lot of factor changed some of them:

- Competition is becoming fiercer by the day. To remain competitive is a necessity than a desirability today.
- Customers are demanding better quality at reasonable price.
- There is qualitative change in the supply chain now. The partners too are demanding and need customized chains.
- Free trade is growing, compelling organizations to have international outlook.
- New concepts are emerging and ruling. Lean manufacturing, just-in-time, vendor managed inventory (VMI), mass customization, flexible manufacturing, virtual integrations are order of the day.
- Product focus is giving way to process focus, enabling firms to improve operations.
- Communication is improving by the day. Electronic data interchange, electronic fund transfer, e-commerce etc. Are faster, reliable and strategic.
- Tendency to outsource peripheral activities and concentrate on core activities is now the accepted norm worldwide.
- Mergers, acquisitions and all kinds of business alliances are changing the economies of scale.
- Modes of transport too are changing.

At the end, let us say that the integration of the supply chain inside a company must be taken seriously and carefully planned to avoid conflicts of interest between organizations. Integration is based on cooperation and understanding of mutual interest. This integration can affect the way partners work. In this concept managers and researchers have establish rules and principals to guarantee a healthy integration of the SC³⁸.

³⁸ (Concepts and History of SCM practices s.d.)

6. Supply Chain management principles:

In today's competitive market a firm must meet the expectations of its customers as best as possible. Not only offering to customers the product or service that meets their demand, but it must also be able to deliver the product or service with increasingly higher criteria of cost, quality, delivery time, safety and the environment. So In order to comply with these criteria, the company must know how to optimize its operations from procurement at its suppliers, through manufacturing (internal logistics) to customer's delivery. On the other hand, a company must also take into account internal those logistics related to its supplier's supplier and its customer's customer. The general view of the interaction and collaboration between the different partners of this company is what called the supply chain, now to improve your supply chain or even integrate it concept into a company, managers follow the principles³⁹.

a) Adapt your supply chain based on the needs of customer segments (by product, industry, or trade channel):

In order to have a good customer service it is very important to understand your customer has needs and divide them in groups called segments. Product, trade, channel or industry, this process help to provide each customer with the suitable SC., can do the segmentation.

6.2 Customize logistics network for each of the above segments:

in order to grow profits , you need to have a flexible supply chain, therefore supply chain managers work on many approaches to satisfy all client segments, they tend to design a multilevel logistics networks this kind of process require a real time decision and risky changes to handle different types of flow.

6.3 Align demand planning across the supply chain, so that all partners benefit by not keeping unneeded stock on hand:

To improve the supply chain, it's very important to share data with partners, to have real time forecasting and avoid unnecessary stock. However, partners consider the sales data confidential, as a result the managers must use it wisely.

6.4 Differentiate products SKUs close to the customer for choice, and standardize SKUs to deliver too many different regions while meeting different regulations:

This is more like “just in time production”, instead of a mass production of a final product manufacturers tend to make a semi-final product and assembly the parts as customize as the client demand; the assembly process is done in a distribution center or SKUs (stock keeping units). Currently, DELL is well known by this type of production.

However, the opposite of this approach” standardization” is also a good policy to drive the cost down due the economy of scale.

³⁹ (Ten Classics From Supply Chain Management Review 3 1997)

6.5 Outsource strategically while keeping core competencies in-house:

Outsourcing is very important, managers must choose their suppliers wisely, the lowest cost spent on the suppliers, the lowest the price the product in the market place is.

6.6 Develop information tech that supports multi-level decision making, and tie it into business processes so you fully understand your deficiencies and needs :

Managers need to build an IT system that must be able to handle daily transitions and e-commerce across the supply chain, also sharing information.

IT facilitate planning and decision making , allocate resources and effectively , an IT project will provide tools for the enterprise to enable a strategic analysis and help locating distribution centers and suppliers as a long term perspective .

6.7 Adopt both financial and service metrics:

Using “Time-Driven Activity-Based Costing” which determines your customers’ profitability and drives value.

These principals affect the entire supply chain, therefor, to apply them correctly we need to fully understand how all the SC units and part function.

7. Factors that affect the performance of SC

In order to ameliorate the supply chain, managers take in consideration the following areas in a factory⁴⁰:

7.1 Production : Production refers to the capacity of a supply chain to make and store products , so it’s essential that operations in any type of firm must be strategically aligned to the market requirements , the company needs to know what products the market needs , how must and by when to be produced in order to compete successfully .Next step is to define production lines ,and schedule , quality control , equipment maintenance and the workload needed . However is very important to make those decision wisely to avoid strategic mistakes and extra costs.

Production factories can be built to accommodate one of two approaches to manufacturing:

a) Functional focus

this approach concentrate on few operation that can do specific functions as producing only parts or only doing assembly for pre-produced parts , this type of approach results to making many customized products , it also helps the firm to gain expertise in how each part functions and not how the whole product functions .

⁴⁰ (chapter 1: Basic concepts Of Supply Chain Managemen s.d.)

b) Product focus:

If a company chooses this approach they must provide all operation and fabrication line in order to produce that given product. This approach help the company gain expertise on how the whole product function and no given knowledge on how each part works .

Companies must choose the right approach form their strategic plan, or what mix of both approach will result in a positive way to respond to customer demands.

As mentioned above, production is also the capacity to store products for that, warehouses are also made according three approaches:

c) Stock keeping unit (SKU) storage:

It's the traditional warehousing system where all types of products are store in the same place, this is an easy and efficient approach to store the products.

d) Job lot Storage:

in this approach , products are stored by certain need or category ; color , type , size , date ... this type of storage will make loading and unloading operations , this approach is usually supported by an information technology system to facilitate storage management , comparing to the first approach , this one optimize space and operation time .

e) Cross docking:

is a storing center where all goods quickly pass through, the storing center is located far away from the facility, where trucks from different suppliers and customers come to load and unload goods .this approach was first adapted by Wal-Mart, in order to gain space and increase the efficiency of their supply chain.

7.2 Inventory:

inventory is spread all over the supply chain from raw material storage and production process to the final products storage, the purpose is to know How much inventory should be held as raw materials, semi-finished, or finished goods, a company with large amount of inventory is very responsive to costumers demands, however too much inventory is a cost and to achieve high levels of efficiency, the cost of inventory should be kept as low as possible.

There are mainly 3 types of inventory:

a) Cycle Inventory:

This is the essential inventory company needs to satisfy the costumers demand, from raw materials and finished products.

b) Safety Inventory:

This one is set as a buffer for uncertainty and as a security store for critical situations, however if demand forecasting is perfectly done, the company will only need.

c) Seasonal Inventory:

this a backup inventory for seasonal price instabilities, for example a raw material is cheaper in a certain period of the year, so companies tend to purchase it and store it for yearly use, or in case a product demand is higher in a season more than the other, based on managers forecasting, the company produce a large amount a store it for the season. This type of inventory is quite a risk, managers try to balance the cost of extra inventory with the cost gained from seasonal sales.

d) Location :

location is the major important strategic decision ever made for a company, it refers to the geographical siting of supply chain facilities which means a huge amount of resources investment (money and human) and long-term plans , experts must make the decision where and witch activities in each facility , and they have to choose between to set centralize activities in fewer locations to gain economies of scale and efficiency or set decentralize activities in many locations close to customers and suppliers in order for operations to be more responsive. As said before, it's very important for experts to make the right decisions because Location decisions have strong impacts on the cost and performance characteristics of a supply chain (cost of the flow from the facility to the costumer).

7.4 Transportation:

is the movement of everything in the supply chain from raw material to finished goods between different facilities , so first thing to do is the choose the suitable transportation mode , taking in concentration the type the goods to be transported , the distance and the cost for example Air freight and truck delivery are fast and reliable but expensive. Shipping by sea or rail is much less expensive but usually involves longer transit times and more uncertainty , again managers must design routes and networks for moving products, discuss and study each possibility to end up with one or a mix of modes that can optimize cost and time .

The rule is, “the higher the value of a product (such as electronic components or pharmaceuticals), the more its transport network should emphasize responsiveness and the lower the value of a product (such as bulk commodities like grain or lumber), the more its network should emphasize efficiency”.

7.5 Information:

Is the basis upon which to make decisions regarding the other four supply chain drivers, it's about how much data should be collected and how much information should be shared, a company with a strong information flow, is more likely to make effective decisions.

Information is used for two purposes in any supply chain:

Coordinating daily activities: The companies in a supply chain use available data on product supply and demand to decide on weekly production schedules, inventory levels, transportation routes, and stocking locations.

Forecasting and planning: Available information is used to make tactical forecasts to guide the setting of monthly and quarterly production schedules and timetables. Information is also used for strategic forecasts.

However, to ameliorate these factors it is important to hire a qualified SC manager, so what are the main duties of a SC manager?

8. The role of the a Supply Chain manager

Supply chain managers are trained engineers capable of optimizing the entire logistics chain from a strategic point of view (selection of suppliers, opening/closing of sites, location of warehouses, implementation of information systems, creation of the distribution network...) to an operational point of view (supply management, quality management, workshop management, distribution...).

SCM managers are engineers with technical and managerial skills enabling them to have a global and strategic vision of the company in order to optimally manage the choice of entities as well as the physical flow of materials and/or products between all the partners in the supply chain, for industrial and reverse supply chains. These skills will also enable SCM managers to design and develop logistics platforms enabling companies to be more and more autonomous and efficient.

SC manager are recently highly requested because of the advantages they bring in terms of planning and management of large-scale firms, whether they have an economic or social profile. Moreover, at the technical level, they will certainly have echoes in the management of supply, storage and transport problems between the different sites of the company in deterministic, dynamic and stochastic approaches starting from a single level logistics chain (supplier-factory) to several levels (supplier-factory-distribution center-warehouse-customer).

Supply chain experts master the entire process of creating the offer from a "technical" point of View using scientific tools (operational research, IT, etc.) but also from an "economic" point of view (industrial economics, management, etc.), without, of course, neglecting the "human" point of view, which is essential for such functions (industrial sociology, ergonomics, etc.).

Therefore, skills in industrial and logistics management are required in all industrial and service fields, both for the technical and managerial aspects with the ability to design, audit, control and manage industrial processes A global vision of industrial and logistic systems And the ability to work in a team and to integrate into the professional environment .Unfortunately, there is very little training in this field in our country.

Supply chain managers can fit in a wide range of application areas that cover both technical and managerial fields.

a) Industry: all types of industry

The manufacturing industry, the automobile industry, the petrochemical industry, the energy production, the food production

b) Service: A very large number of services

Hospitals, Banks, Ports and airports, Road and motorway networks, Rail networks.

They can occupy positions at the heart of an industrial process:

Production Engineer; Workshop Manager, Industrial Line Manager, Quality Engineer but also to the positions at the interfaces of these processes:

Logistics engineers; Industrial information systems managers, Supply Chain Manager, Industrialization project manager Industrial and logistics management consultant.

9. The importance of supply chain management:

When we talk about the importance of Supply chain management we aim to spot the light on the loss due to the absence of an effective supply chain strategy and the benefit due to a well-structured supply chain for any firm or business. Fundamentally, it is a question of how far is the integration of supply chain that matters for any firm.

The importance of Supply Chain Management thus is in:

- Reduced inventories along the chain
- Better information sharing among the partners
- Planning being done in consultation rather than in isolation

The benefits too would be reflected in terms of:

- Lower costs
- Better customer service
- Efficient manufacturing
- Better trust among the partners leading to win-win

10. Conclusion:

In this chapter, we have reviewed some notions about supply chain, supply chain management and its importance in the optimization of financial, physical and information flows to get a clear idea of the field and its uses.

Therefore, we can say that supply chain management takes a considerable place in the organization of any company and it requires special attention. This attention must also affect the role of the supply chain manager who is supposed to have a wide enough knowledge and experience to maintain the management of the various operations of the chain in specific and the company in general.

Through the three previous chapters, we have presented all the concepts that will help us to carry out our practical part, in the next chapter we will delimit our problematic and proceed to a diagnosis to elaborate our market study in order to highlight the problems related to our project in order to propose our intervention strategy

4 Chapter04: Ecosystem and Industrial Environment

1. Introduction

The purpose of this thesis is to study the three concepts mentioned in the Algerian market and establish a link that can allow companies to benefit from consultants expertise and experiences to improve its performance. This link is made through a startup company using a freelancing website dedicated to industrial consulting in others words we are going to use the two concepts “consulting and freelance” to resolve “supply chain management” problems.

The creation of this link requires detailed market study of all the elements that affect a startup’s growth and success. For that, our market study is based on the contribution and empathy from our segment clients (consultants, SC mangers and companies) in purpose to truly understand the mindset of our users to adapt our solution according to their needs.

In this chapter, we setup multiple interviews with SC managers and consultants and couple meetings with CEOs.

On one hand, to answer the questions that have a relation with the companies such as: Do companies adapt supply chain management concepts? If yes, is it the correct one? At what stage do companies decide to hire a consultant? Moreover, for which type of problems in the supply chain?

Do they hire the consultants for the launch of new products or new target markets? All this and more questions to analyze the local SC consulting market.

On the other hand, to better-known experts skills and field of expertise and more questions such as: do they prefer to work in team or solo? What are the obstacles they generally found when working as consultants? In addition, what is the margin of money they ask for the different projects and tasks?

Finally, the big challenge we will be facing, our clients and us, is how to spread the culture of consulting, freelance and promote to the supply chain management in our local industry and market through our platform. Moreover to convince both parties to trust us and practice business with us.

2. Startups in Alegria:

The Algerian GIG ECONOMI is still developing. There is currently some initiatives to promote for startups culture led some companies to follow this trend locally such as Jumia, Yassir and Coursa, as well as other freelance platforms such as Freehali⁴¹.

The advantage of our local market is that the first startup arrived dominates it, any temptation to compete is only a copy past startups with no value add or innovation, the case of many websites that tried to compete with Ouedkniss.

However, lack of competition is due multiple reasons, mainly because people are unaware of startups. Moreover, entrepreneurs fear to fail promoting their service before lunching and they find the paper process to start a startup very difficult and complex.

To continue our work properly, we must agree first on some definitions and terms that we will use frequently in this chapter.

2.1 Patform

A major piece of software, as an operating system, an operating environment, or a database, under which various smaller application programs can be designed to run⁴².

2.2 Startup

“A startup is a human institution designed to create a new product or service under conditions of extreme uncertainty.”

The "new product" section underlines that it is directly linked to innovation, this last one means something unusual that did not exist before. Schumpeter divides innovation into five pillars:

1. Introduction of a new product or a new variant of an already existing product.
2. Applying new methods of producing or selling a product.
3. Establishing a new market where the given product was not yet represented.
4. Acquiring new sources of supply for raw materials or semi-finished products.
5. New industrial structure such as the creation or destruction of a monopoly position.

2.2.1 The process of creating a startup in Algeria

The standard form of startups in the country is the limited liability company, also known as a “SARL”, an abbreviation of the French terme : “Société à Responsabilité limitée” .

The minimum capital required is 100,000 DZD.

Below is a step-by-step guide to administrative process to register a startup based on the information contained in the Doing Business report in Algeria.

⁴¹ ((Smart Innovations and Industrial solutions (SIIS), industrial engeering graduation thesis departement 2019) s.d.)

⁴² (www.dictionary.com/browse/software-platform s.d.)

a. Obtain a certificate from the National Center of Trade Register proving the uniqueness of the company name you have chosen and retrieve registration forms.

Cost: 490 DZD

Location: NRC Bordj El Kiffan.

Time to complete: 01 day.

b. Deposit the initial capital with the notary.

Cost: free of charge.

Location: Any notary available.

Time to complete: 1 day.

c. Obtain the birth certificate(s) of the (co-)founder(s).

Cost: free of charge.

Location: for Algerians in any commune.

Time to complete: 1 day.

d. Define and notarize the internal/external starting laws with the help of a lawyer. In addition to submitting a specimen of the signature of the (co-)founder(s), as well as the lease for the startups head office.

Cost: depends on legal fees.

Location: Any available legal services office.

Time to complete: 07 days.

5. Publish the startup's defined constitution from the previous step in the newspaper official legal BOAL plus in one of the daily newspapers.

Cost: for BAOL, 48 DZD per line. For the daily newspapers, it depends on the offers advertising.

Location: National Commercial Registration Center + Any daily newspaper headlines.

Time to complete: 01 day.

e. File for start-up registration with the National Center of Registry of trade, no later than two months from the date on which the start-up was completed trained.

Cost: Depends on the start-up capital:

- 9120 DZD if the capital of the company is between 30 001 and 100 000 DZD.
- 9520 DZD if the company capital is between 100 001 and 300 000 DZD.
- 9760 DZD if the capital of the company is more than 300,000 DZD.

Location: Any available local branch.

Time to complete: 01 day.

f. Pay a customs stamp and collect the receipt.

Cost: 4000 DZD.

Location: Any available local branch.

Time to complete: 1 day. (This task can be completed at any time before, not necessarily in the seventh order)

g. Register for corporate income tax, income tax and the benefit to the local tax office.

Cost: free of charge.

Location: any tax authority.

Time to complete: 01 day.

h. Register with the National Social Insurance Fund for Workers -CNAS-. All new workers must be reported no later than 10 days after the beginning.

Cost: free of charge.

Location: any branch of the National Social Security Fund.

Time to complete: 01 day.

i. Register in the « Caisse nationale de sécurité sociale des non-salariés – CASNOS ».

Cost: free of charge.

Place: any national branch

Time to complete: 01 day.

j. To make the company stamp.

Cost: varies between 1500 and 3500 DA.

Location: Any stamp manufacturer.

Time to complete: 02 days.

k. Stamp the startup's accounting and inventory books in court at the time of the start of activities.

Cost: 8000 DZD.

Location: Any court.

Time to complete: 01 day.

1.3 PME

Small and medium-sized enterprise are companies that fall under a certain legal limit. Concerning the number of employees and annual sales. However, this differs from place to place.

In Algeria, a PME is a provider of services or goods employing between: 1 and 250 people, whose turnover does not exceed 2 billion Algerian dinars, with an annual balance sheet total not exceeding 500 million Algerian dinars, and respecting the criteria of independence.

Meeting the independence criteria means that the company is purely autonomous and is not a division or subsidiary of a parent company. A maximum of 25% of the shares (voting rights) can be held by another organization.

3. Analysis of the Algerian market

In this section, we will analyze the Algerian market in both fields: freelance and supply chain management in order to collect data for our research.

3.1 FREELANCE IN ALGERIA

Freelance in its modern concept is so adapted around the world mainly in America and Europe, partly in third world countries. Although it massive expand, freelance in Algeria is far from being a real profession, the first problem we faced writing this thesis is the lack of overages and researches about this field and the absence of statistics. However , freelancing in its old boundaries-less⁴³ concept , accomplishing tasks for a certain amount of money , for example offering extra school courses for students , masonry and other daily jobs .

Now the modern concept of freelance is adapted by youth mostly , Algerian freelancers tend to offer their services in their personal social media accounts as Facebook , Instagram and LinkedIn or in job offers platforms like “emploitic.com” , “ouedkniss.com” ... , some freelancers use foreign freelance websites due the absence of Algerian freelance platforms .

However, it exist two Algerian platforms for local freelance the first is www.freelance-algerie.com/ which is practically out of service or a dead website, the second platform is www.freehali.com/, this one is the first marketplace in Algeria for local freelancing, with a variety of categories.

We tested it ourselves in order to see how it works, we noticed that rate of freelancers looking for an opportunity is higher than job offers.

⁴³ Revise in chapter 3

a) Obstacles of freelance in Algeria

E-Payment: the rise of people engaging in the GIG economy is a result for how flexible this type of work is, and by the term flexible, we mean time, place and payment. This last one is a major key for the success of GIG economy, people now are doing their jobs at home the time they want and receive the payment online in a virtual bank or as known as “E-PAYMENT”.

Now, any one in any part of this world can do a job for someone in the opposite part of it and still receive the payment, no cash needed, only by using credit card, making life easier by virtualization, from applying for jobs on a platform to doing it online to receiving virtual money.

Unfortunately, “E-PAYMENT” services is not available yet in Algeria, freelancers and GIG economy as a general term find so many difficulties when it comes to payment.

freelancers who work on foreign platforms must get a credit card in order to receive payment, however this process is not an easy one, we questioned some freelancers (20) about the difficulties they find when freelancing in Algeria, and the major problem was payment, they all agreed that getting a credit card from a bank is a complicated process, they complained about taxes and the price of change. As a solution, they prefer to proceed with another way.

The process starts by getting a credit card from social media pages that offer it for 5000 DA using an European (mainly French) address to avoid charges and taxes, when the freelancers receive virtual money, they address to a money changer in the black market in order to pull the money cash with a better change price that the bank offer, this process is an absolute risk. However, freelancers find it more trusted and confidential.

Talking about local freelancing, payment is even more complicated and less trusted. If it’s done through a local freelance platform (which basically are rare) freelancers and employers deal with CCP as a payment way, however this process is not trusted, you can pay and never get your job done or you can do the job or never get paid.

Back to the freelancers we questioned, they agreed on avoiding local freelance, “it’s a pain in the head” that how they described it, nothing is guaranteed especially when there is no job contract for freelancing and your rights are not reserved by the law if someone don’t pay or steal your work.

For that, “E-PAYMENT” is a necessity to provide the atmosphere for GIG economy to rise, and to reserve freelancer’s rights. Until that, freelancers must take their caution and make condition and guarantees.

lack of freelance culture: in our community, we still don’t consider freelancing as profession, not only that, but we also have a lack of freelance culture, people who are familiar with freelance are mainly college student and not all of them, a slight category of students who are open to GIG economy are engaged in this field, it will be extremely odd for an older person to accept it and trust it.

lack of local freelance websites: as a result of the previous point, the lack of freelance websites come with the lack of it culture, there is about 2 websites dedicated for freelance only one is a bit active (Freehali), a few social media groups and pages, that mostly the rate of freelancers (job seekers) is way too high regarding the rate of employers (job offers).

Trust: in freelance world, trust is an important key to do the job, this trust is built on commitment from both players (freelancers and employers) by showing dedication; accomplish the job in time and by receiving payment in time. Which is not the case in local freelance, “some firms or employers take advantage from young freelancers, they make them do the job and then they avoid paying, and never show up again” this is how “**Nazim BELLEL**⁴⁴” respond.

Language: as our local market is not yet prepared for freelancing, Algerians has no choice but to practice freelance on foreign platforms, and the first obstacle is language.

It is very necessary to communicate with your contractor in order to fully understand his needs, and transmit your ideas and thoughts, on a foreign platform you will deal with international people around the globe; freelancers find themselves in need of translation. However, in this decade English is a worldwide language, learning it will save you hours of translation.

3.2 Supply Chain management in Alegria

The industrial context of our country is in full mutation, its needs high-level executives to look after industrial and logistic issues, the market’s actual situation give us so many reasons that justify the need to increase scientific knowledge by a global approach of technical, managerial, economic and human problems.

In the field, for economic companies, the consumer market is very competitive where the problem of designing and managing supply chains represents a challenge. In this context, many companies are seeking to optimize their supply chain. Currently, competition is no longer between different companies but between different supply chains. Now the question is: does our local companies have a full integration of supply chain management? If yes, did they adapt and apply the true suitable meaning of SCM? If no, what are the reasons that keep the companies from adapting the concept of SCM?

Before we get into answers, we as supply chain management students we passed a numerous internships, in different firms in Algeria, big ones, local and international ones. In local companies, managers’ first impression when asking about our field of study was “what is supply chain management, is it civic engineering? Is it more like mechanic engineering or what exactly?”

We had to explain the whole concept of SCM to each and every one we interact with during our internship, the struggle was real, the absence of SCM culture puts not only our future as

⁴⁴ Freelancer in web site development and design

supply chain managers in danger, but it is also holding companies from moving forward and as a result, keep the national economy from effective progress.

However, we faced this problem only in local companies, international ones apply supply chain management by its true concept, and they have a whole department from SC, qualified managers a good workforce and information technology.

4. Data collection

In our way to seek some information about consulting, we interviewed some supply chain management experts and companies:

4.1 Supply Chain Management experts

This part of the research is based on the information giving by high qualified supply chain managers. We count:

Our first interviewee is Miss's Nassiba CHARCERI she is a Supply Chain consultant for local companies, she is specialized in:

- Managing the development of new products distribution in the Algerian market.
- Analyzing purchase operations to optimize costs effectiveness.
- Providing recommendations for the smooth running of supply chain operations.
- Sourcing business partners for RM/PM/FG material supply as well as troling and co-packing projects.
- Undertaking market studies and business plans for new investment projects in MD.

Our second interviewee is Mr. Zaki SARI; he is a Manufacturing Engineering Professor at University of Tlemcen, Algeria. Also the founder and former Director of the Manufacturing Engineering Laboratory of Tlemcen (MELT), and the founder and former head of the National Curriculum of Manufacturing Engineering. Sari is also one of our mentors who has coached us in our career as engineers at the higher school of Applied Sciences of Tlemcen (ESSAT).

Mr. Zaki is also an industrial consultant who has collaborated with multiple companies in Algeria; he is an expert in Design, Modeling, Optimization, Simulation and Control of AS/RS...

Our third interviewee is Mr Ouali ASSAM, a senior consultant in SCM.

He has held several positions during his professional career such as head of maintenance department of service station network at NAFTAL, currently director of commercial transactions at a company of Construction of Agricultural Equipment: CME in Sidi Bel Abbes. He even created his own company in 2012 in the field of maintenance and thus he could have an important experience allowing him to integrate the world of consulting. He started by sending a platform to companies with all the subjects that can be treated in Supply Chain: from procurement, stock management, production, sales and even auditing.

He was a consultant at ISGP: (Institut Supérieure de Gestion et Planification): the first Algerian higher institution of management and planning. And also in other national institutes and private schools, he teach salaries of different companies in different fields such as production, Supply Chain Management and auditing in a professional way and at the same time offers consulting services in the fields already mentioned.

Mr. Khaled HAMZA is our fourth interviewee, he is a supply chain manager specialized in Lean Warehousing, Logistics, Planning, Procurement, SAP MM and KPIs.

He has a good experience in multiple local and multinational companies, he had the chance to discover and work on different industries such as:

- Wholesale (Food, Groceries).
- Pharmaceutical (Production).
- Foods product (FMCG).
- Chemical production (ammonia, fertilizers ...).
- Metal & Steel (Wire Machine, Pipe...).

Mr. Khaled is very active on his LinkedIn account sharing regularly educational content about Supply Chain Management and about the industrial sector in Algeria. However, Mr. khaled never worked as a consultant, our interview was more like a friendly chat about the reality and about the integration of Supply Chain in our local companies.

Our next interviewee is Mr. Mabrouk AIB, he is a highly experienced manager. His deep understanding of both public and private sector gives him the ability to address a wide range of business issues. He has proven record of accomplishment in business development and transformation management, improving the capability of organizations to deliver with high standards of quality.

Holding an Engineer Degree and a PhD in strategic management, and leveraging Top Executive Training at Harvard Business School and Oxford University, his proven experience in Finances, HR development and IS management has seen him competently manage major change in various and demanding context, being competent at both strategic and operational level.

Expertise: Strategy, Performance Management, Organization, Business Development, Planning, Budgeting, Change Management, Industrial Engineering.

Our last interviewee is Mr. Nasreddine BOUGHACHICHE, he is a Supply Chain manager and international trade advisor.

- Several years of Successful achievements as Manager, Director and as Freelance Consultant in 3PL LOGISTICS OPERATIONS, INTERNATIONAL TRADE, and SUPPLY CHAIN linked to various industries and high budgeted EPC Projects inside most reputed local and Multinational organizations where he used to play strategic roles in reaching goals. He supports companies to rebuild NEW STRONG Logistics, Supply chain and Import-export structures responding to their goals inside the new global challenging crisis context. He offers deep knowledge for domestic and regional markets added to his vision for the

necessity of integration of digitization in process, his sharp analysis of data in addition to his long expertise in providing turnkey solutions keys of Tangible guarantees of profitability. His core of expertise includes but not limited to the following areas:

- Logistics management solutions and exit Crisis strategies
- Integrated logistic support (ILS)
- Implementation of operational Process, Procedures and SOP's
- International Trade and multi-modal transport
- Audits, Diagnosis and building of new Organizations
- Market analysis
- Coaching, Advising and Training

We would like to show them our sincere gratitude for collaborating with us and offering us time and data kindly, we could not continue this research without their help.

a) Consulting, supply chain and freelance in Algeria seen by the eyes of experts
First thing to notice in our local companies is the absence of supply chain culture all our interviewees approved on how local companies are way too far from adapting supply chain, companies rarely have a SC department, they either underestimate it or do not have the correct meaning of this domain.

“you will never find a Supply Chain manager in an organization chart of a company starting out because they do not know the importance of this speciality, and the former consultants who do organization, they do not have detailed notions on this concept, they know Supply Chain superficially so they do not take it into account.” **Ouali ASSAM**

“Each company define supply chain based on their function or structure, we see it in some companies as logistics in others as planning or production and forecasting.” **Khaled Hamza**

“The supply chain management is vast but generally when we talk about SCM in Algeria people only talk about Purchasing; Purchasing is part of the supply chain” **Nassiba CHARCERI**

They agreed with us that only multinational companies have well-structured supply chains.

“Generally, multinational food companies make sure they adapt a good supply chain because they have to deal with mass production and daily distribution” **Khaled Hamza**

They also pointed that the integration of Supply Chain in local companies is in it very beginnings and it will take a while to expand the culture of supply chain management. We will need initiatives to help change the situation because the Algerian market is so

unstructured and complex that the demand is much more than the offer but people are afraid to invest in it.

Consulting, as SCM, is a new concept in Algeria, the market of consulting is unorganized.

“The Algerian market is not open to consulting culture yet, in our daily life people rarely consult website for information or help not to mention local companies, it will be very difficult for a consultant to work in such environment” **Khaled Hamza**

“Underestimated yes. Hard no, but you have to deal with people with very different skills and personality. This part of the job is hard. New, I cannot say but surely not spread out” **Zaki SARI**

Moreover, the market is ruled by old people, mostly, retired employees from the administration and finance which hold the market from adapting modern concepts.

“So, consulting in Algeria is only concerned with finance and accounting because it is defined by old people who have not been trained in logistics and who do not have any reference in the domain, because consulting in Algeria For them is only financial and accounting audit, which has a reference system, called the National Accounting Plan, while the other logistics reference system is unknown to the old consultants.” **Ouali ASSAM**

However, some of the big local companies using consulting tend to hire foreigners because they trust them instead of local consultants.

“Yes absolutely for most of managers consultants should be foreigners (Europeans) even-though they are often less skilled” **Zaki SARI**

b) How does clients reach out to consultants

Based on the managers' experience, there are three main methods consultants use to reach out to clients:

- Work network:

“We call a supplier portfolio c.-i.e. a network: I have been in companies during my career, people who are in the same field, I have built a network, and therefore I decided to launch myself in consulting towards the end of 2019” **Nassiba CHARCHERI**

“Usually it was through the trainees that the companies send for training, and those who passed on the information to their companies saying there is such a consultant in such a field, and so the company itself contacts us and we solicit for audits or studies or even for consulting” **Ouali ASSAM**

- LinkedIn network:

*“I have made a network through other consultants, also via my LinkedIn account” **Zaki SARI***

*“I am reached by firms on LinkedIn and ask me to send them my CV to set a panel in order to see if my experience meet their needs” **Nassiba CHARCHERI***

- Recommendation and events:

Consultants offer their services through industrial events where they get to contact with companies and employers face to face.

They are also, recommended by their friends and colleagues who work in the industry

*“First of all the recommendation and the visits of the fairs, which I did at the beginning of this year, I participated in an "Arab Heath" fair where I distributed my business cards, I proposed my services to even suppliers who are looking for customers on the Algerian territory, this is a bit of the supply chain and also business development” **Nassiba CHARCHERI***

- c) Do they work solo or in team :

*“Solo in some projects, others in teams. I don't work in company but on behalf of companies (Freelance)” **Nasreddine BOUGHACHICHE***

*“I work alone but sometimes in team work as in the case where a company asks for a general report.” **Ouali ASSAM***

- d) How they proceed with clients:

Once the client reach out to the consultant based on one of the methods mentioned above, the consultant study the project and the needs in order to determine time and resources required to accomplish the job.

*“There are companies that invite the consultants to spend a few days in there company to find out where the problem is to make a diagnosis and a report on the current state and then they agree on the prices saying if you want me to propose a solution here is the price if you do not want here is the price of diagnosis already done.” **Ouali ASSAM***

Then, first thing they do when they agree on work details is to sign up the contract contains terms and conditions, to reserves the rights of both sides:

*“Each time I start with a company I have a contract to sign and by that I mean the agreement on the fees.” **Nassiba CHARCHERI***

The contract must contain all work details to avoid problems and misunderstanding during the project.

*“It depends on the contract, short or long run. I have done both, long contract are much more difficult, especially when goals are not clearly stated at the beginning. Generally problems arise when the contract is not well written due basically to lack of experience.” **Zaki SARI***

e) At which point a company hire a consultant

Consultants represent an external eye for the company, they help making neutral decisions based of the market’s needs.

*“Consultant are generally hired to do jobs that company employees cannot do by themselves either for lack of skills or time. Also consultant will have an external "eye" and may see what employees don't” **Zaki SARI***

*“Generally it is when the company is facing a major crisis which internal resources are unable to manage” **Nasreddine BOUGHACHICHE***

Companies willing to lunch and need a SC department in their structure, tend to ask a consultant to design that for them.

*“It is much more likely for the companies that start up and that need to set up a system of SC for the structure, they bring in consultant for an improvement, optimization.” **Nassiba CHARCHERI***

However, generally companies hire external managers when they cannot find out what is wrong with the system or cannot solve the problem.

*“Sometimes the customer does not know where the problem is: for example he tells you I have a packaging that is damaged or I have customer returns but he does not know why, sometimes there are out of stock, so you have to see with the experts to find out exactly where the problem is” **Ouali ASSAM***

f) What obstacles the consultant face with companies

- Legal statue not clear yet for freelance consultants :

Said **Nassiba CHARCHERI:**

“Now I am a freelancer but I have not yet officially launched my activity because I would first have to find out about the legal status of a Freelancer in Algeria, how does we do it? How will I eventually pay my taxes? How will I declare my activity? How can I declare myself? Nevertheless, the fact remains that the status of freelancer is not quite clear in Algeria. That's why, in terms of regulations, it remains a little ambiguous”

- Lack of data and availability of staff

All our guest managers agreed on this point, they struggle to get the required data to proceed with the project, either the company has a bad data, do not have the data at all or they consider

the data confidential and do not share it with the consultant. Moreover, consultants need to meet up with workers from the company to seek information and discuss work progress; however, the company's staff is rarely available.

*“When this last one begins to work, he finds difficulties: a bad organization of the things, no information, people leave their posts; he enters in very hard problems that he do not have solutions...” **Ouali ASSAM***

- Resistance to change

Local companies, big or small, are not open for strategic changes or innovative ideas, consultants find it hard to convince companies to change especially old CEOs

- Communication

Managers complained about companies not explaining their needs properly, they do not know how to transmit and describe their objective which cause misleading and a waste of time re-correcting the solution each time.

g) Payments methods and consulting fees

Consultants working in Multinational consulting firms in Algeria proceed payment according to the following criteria said Mr. **Mebrouk AIB**:

- Junior consultant

They are people from the field with no experience, mostly freshly graduated; they are hired to work on basic tasks as data collection, provide statistics and market study.

Junior consultant cost between 20000 DA and 35000 DA per day.

- Senior consultant

They have experience from 5 to 10 years they design solutions for companies and propose ameliorations based on existing data.

Senior consultants cost between 30000 DA and 50000 DA per day.

- Expert consultant

They are experienced managers with 15 to 30 years of work experience they can accomplish a 2 month project in a day or two, they give strategic orientation and can deal with complex problems with wisdom.

Expert consultants cost between 50000 DA and 100000 DA.

However, local freelance consultants are paid differently:

*“The market is so unstructured that an expert consultant do the entire job from collecting data to designing the solution and giving instructions and orientations (they work as junior, senior and expert). However, they offer all these services for a cheap price from 15000 DA to 25000 DA per day” **Mebrouk AIB**.*

He add:

“The price is cheap because freelance consultants, mostly, are retired old managers that exercise this profession just to spend their free time, or they are managers with fixed salaries and practice consulting on their free time as an extra income.”

The payment method cannot be measurable easily due to internal structure of the company:

“It is not easily measurable if the company hires a consultant for a week he will choose to be paid per hour, they will give him an office at the company level to work, he has the right to access all sites and call any person and at the end of the week he prepares his deliverable report, at the beginning they agreed on the price after the consultant during his work he will find difficulties, he has planned a week finally he will take more than a month and to know if he finishes because he doesn't know the conditions of the company before giving the price he wants,”

Quali ASSAM

Freelance consultants receive their payment as agreed in the contract as:

- Portions (50%, 20 %...) these portions are discussed before engaging with a company.
- Per mission, each project is composed of multiple missions, every time the consultant accomplish a mission is paid for what he did.
- Per project, the consultant is paid with full amount of money once he accomplish the whole project.

“In this area there is no time, there is no law and there is not a single procedure” **Quali ASSAM**

At the end of these interviews, thanks to our guests, we are aware of complexity of the Algerian market and the challenges we will be facing.

The information collected from these interviews are the basis of the rest of this project for that, the full version of each interview is available in the end of this thesis as annex.

4.2 companies' market study

From the beginning of this project, back in January 2020, we structured a work plan with goals and objectives we need to reach according to a timeline.

Unfortunately, due to the corona virus global pandemic, our plan took another road, we had to change our strategy and adapt it to the actual situation in order to deliver this project in time.

We setup a target list of companies from the city of Tlemcen, to present them our project and offer them to cooperate with us as early adapters to test our solution and improve it based on their needs and feedbacks.

This step was planned to be done physically by visiting the companies one by one starting by small and medium enterprises (PME) such as:

- PARA MED.
- Mega Papier.
- Ecopack,
- L'exquise
- NIGA PHARM
- SARL Boublenza

Companies during the pandemic were forced to stop the production, many reduced their workforce load, some have went into an economic crisis, which affected their market presence, and all of them are busy trying to regain stability.

The situation is very critical; companies are refusing any collaboration or new projects.

However, we contacted few companies during the pandemic we reached out to SARL BOUBLENTA, the CEO: Mr. Chakib BOUBLENTA himself set a meeting with us; we discussed the project details. Mr Chakib showed his support to us and asked us to send more details and questions to his personal email so he can feed us with more information and details about the company

However, we never received an answer, which is the case with many other companies.

As a plan B, we launched a survey on social media, on LinkedIn to be precise.

The Survey is for both, companies and experts, in order to establish our own statistics; the Survey contains 40 question, about consulting, supply chain and freelance; The Survey was published in (date) it reached out to 1300 user in average; we received 20 answers: 7 companies and 13 experts from different fields, the next title is an interruption for the collected results.

5. Survey and statistics

a) identification of the form fillers:

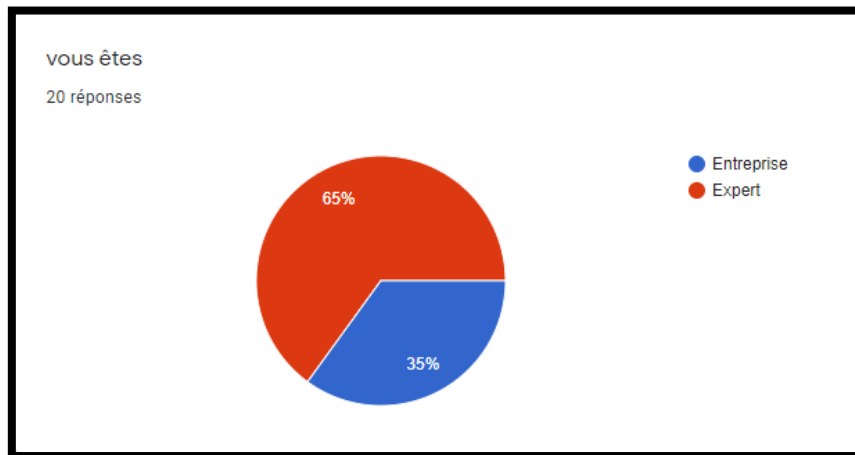


Figure 4-1: Diagram of form fillers

According to our survey, out of 20 replies:

- 65% represents experts (13).
- While 35%, represent companies (7).

b) List of the actual job occupation for consultants :

Consultante Supply Chain
Ingénieur de développement de produits
Consultant
Consultant SAP logistics
Supply chain Leader
Chef de projet ERP
Directeur de la Supply Chain
Chef de projet finance international
Operations Manager
Logistic Manager
Consultant SAP SCM
Consultant expert

Figure 4-2:List of the actual job occupation

c) the coordinates of the companies:

Company name	localisation	Sector of Activity :
Siemens	Algérie	Energie
Spe filiale Sonelgaz	Blida	Production d'électricité
ECCBC	Alger	FMCG
APTIV	Morocco	cablages automobiles
Sarl news cosmétiques	Oran	Distribution Cosmétiques et e-commerce
Schneider Electric	Alger	Industrie électrique et électronique
Renault	Oran	automobile

Figure 4-3: Companies Activity

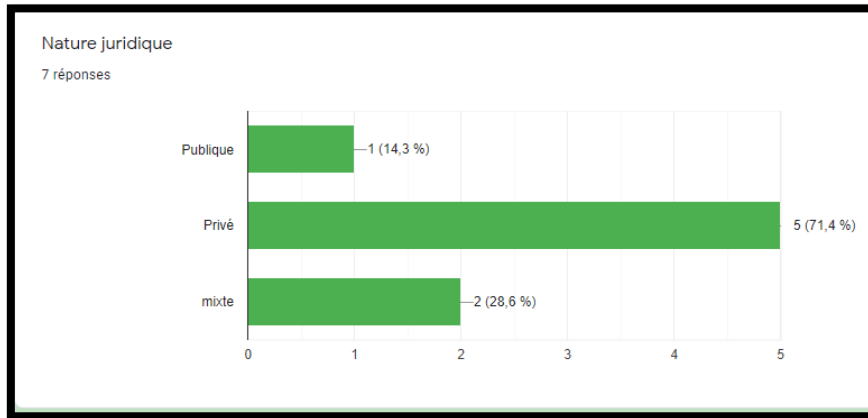


Figure 4-4: Diagram of juridical nature of the companies

The diagram represent juridical nature of the companies:

- 71.4% represent the Private companies (5).
- 28.6% represent mixed companies (2).
- 14.3% represent Public companies (1).

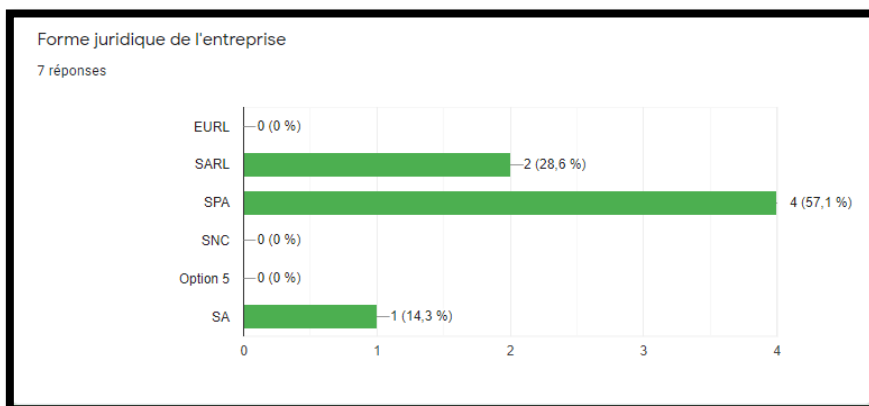


Figure4-5: Legal form of the companies

The diagram represent the legal form of the companies:

- 57% represent companies with the form: SPA (4).
- 28.6 represent companies with the form: SARL (2).
- 14.3 represent companies with the form: SA (1).

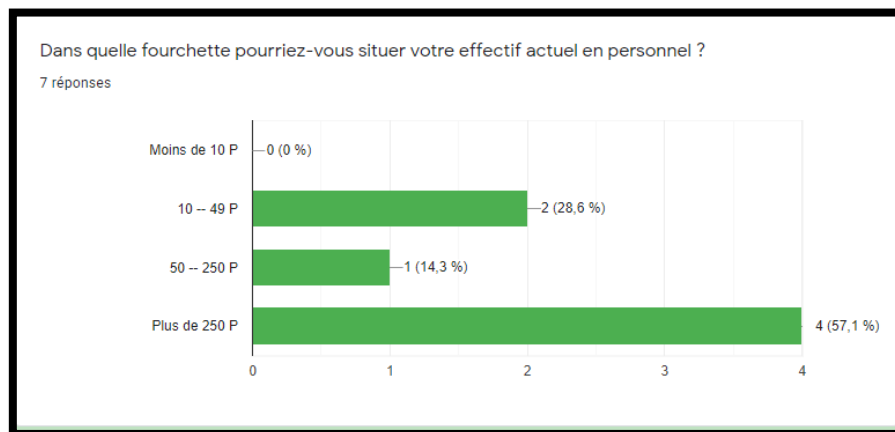


Figure 4-6: Diagram of staff number range

The diagram represent the stuff number range:

- 57.1% represent companies with more than 250 employees (4).
- 28.6% represent companies with employees' number range between 50 and 250 (2).
- 14.3% represent companies with employees' number range between 10 and 49 (1).

d) supply chain management and logistics department:

This part of the Survey is an internal analysis for companies about SC and logistics:

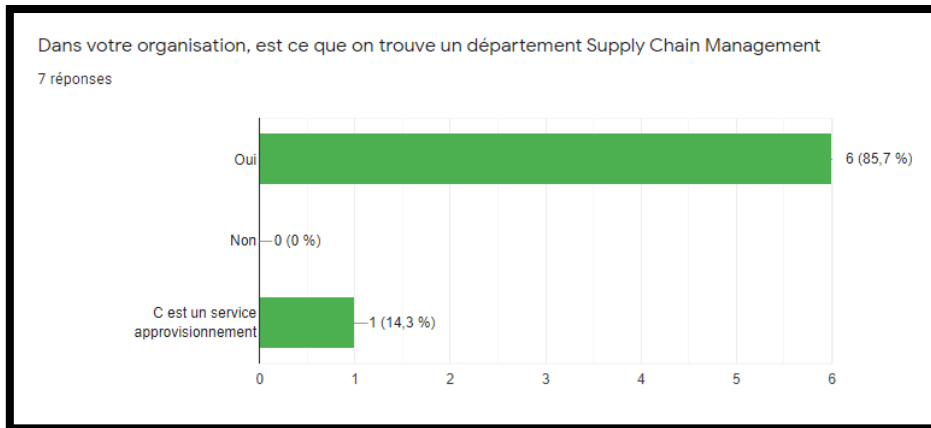


Figure 4-7: Diagram of existence of SCM department

The diagram represent the existence of SCM management in companies:

- 85.7% of companies have SCM department (6).
- 14.3% of companies consider SCM as procurement service (1).

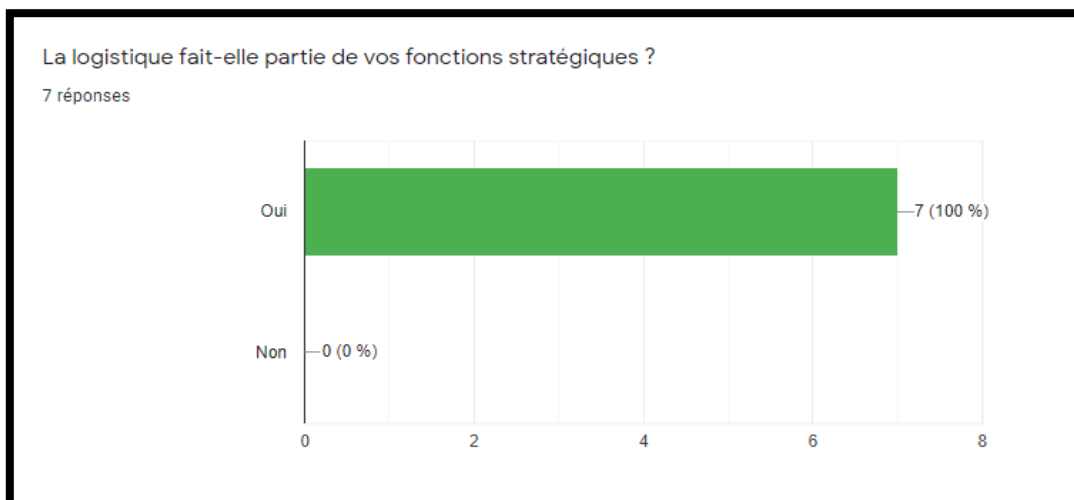


Figure 4-8: diagram of the Role of logistics department in company

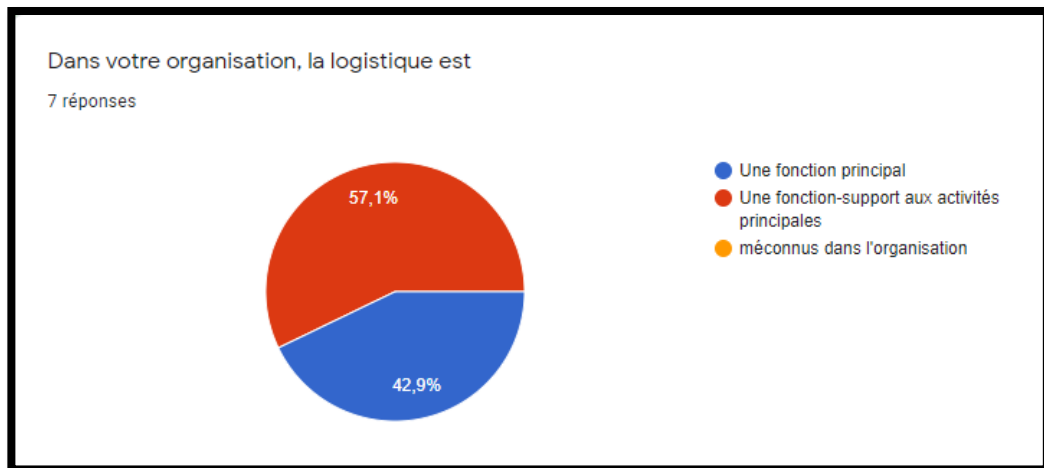


Figure 4-9: Diagram of the Role of logistics department in companies

The diagram represent the role of logistics department in companies:

- 57.1% consider logistics as a support function for main activities.
- 42.9% consider logistics as a main function.
- 100 % (7) consider logistics department as strategic function.

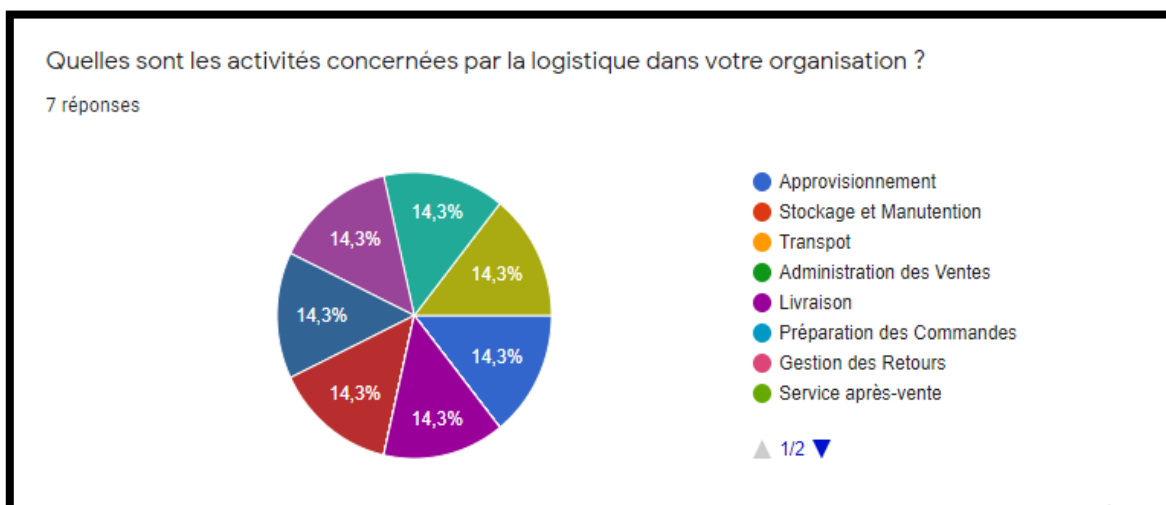


Figure 4-10: Diagram of witch entity logistics is attached to

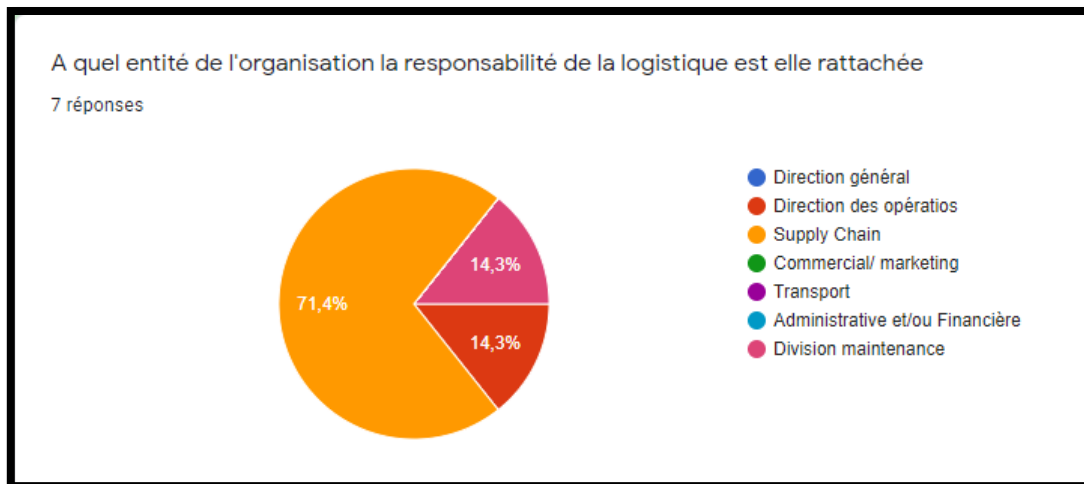


Figure 4-11: Figure 10.4: Diagram of logistics department activities

The diagram represent witch entity logistics is attached to:

- 71.4% of companies attached logistics to Supply Chain department.
- 14.3% of companies attached logistics to direction of operations.
- 14.3% of companies attached logistics to direction of maintenance.

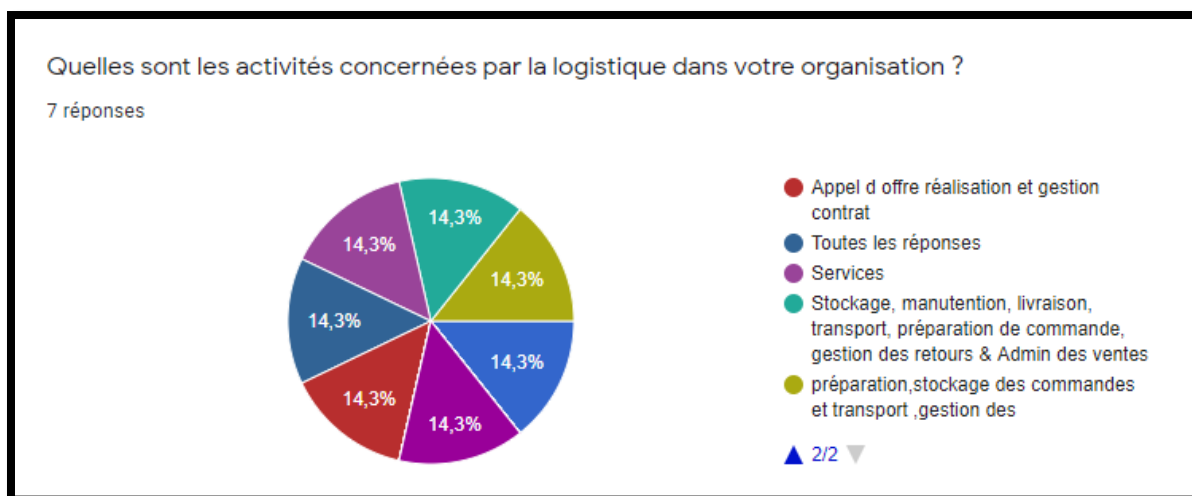


Figure 4-12: Diagram of logistics department activities

Logistics department can be related to many activities such as transport, storage, shipping, sales....

e) **hire a consultant :**



Figure 4-13: Diagram of recruitment of consultants

As we can see, only two companies out of seven have hired consultants before.

The next table resume the details of the companies that used consultants in what field, for witch problems and for how much time:

Field of the consultant	Problems need to be solve	Satisfaction	Duration
Approvisionnement & planning	Prévision des ventes, PtoP SAP	OUI	03 MOIS
Transit	Retard des livraisons	Plus en moins	06 mois

Figure 4-14: details of the companies that used consultants

f) **why other companies never hired a consultant :**

a. Why has your company never recruited an external consultant?

- Raison de cout
- Expérience et maîtrise du processus d'approvisionnements.
- Processus interne
- No comment
- Nous avons recruté un consultant
- N/C
- Pas besoin pour le moment

b. **How does your organization deal with problems that are beyond the competence of its engineers?**

- des stagiaires ou des formations.
- Consultation des constructeurs de la machine.
- Elle fait appelle aux experts étrangers du groupe.
- Cette Situation ne s'est pas Présentée.
- Support du HQ & l'expérience des autres pays du groupe.
- Appel le central.

- Pas encore.

c. Does your organization plan to recruit an external consultant in the future?

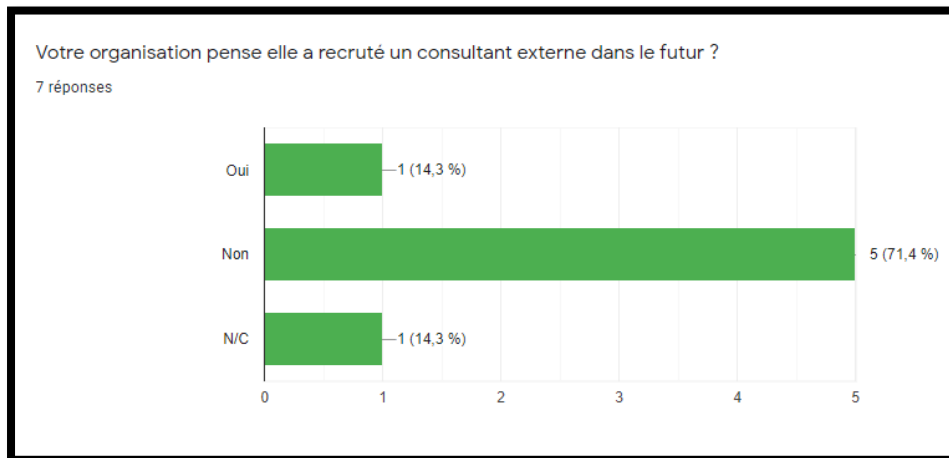


Figure 4-15: Diagram of the possibility of hiring a consultant in the future

j) As an expert: We asked the experts many questions:

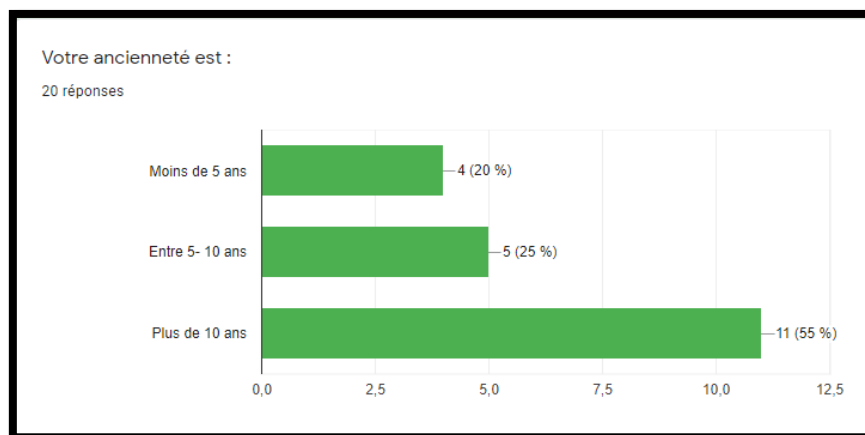


Figure 4-16: Diagram represent the Seniority of experts

Here we can see that:

- 55% of the expert (11) have more than 10 years of seniority.
- 25% of expert (5) are with seniority between 5 and 10 years
- 20% of expert (4) have less than 5 years of seniority

1. Have you ever worked as an external consultant for a company?

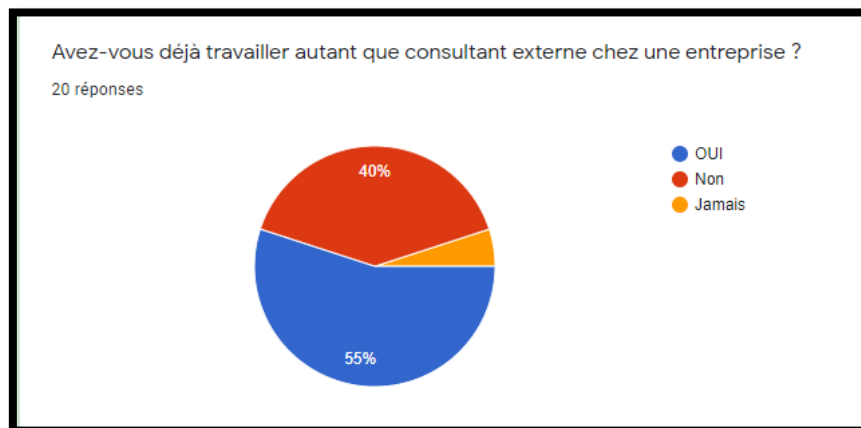


Figure 4-17: Diagram of working as an external consultant

As we can see, the diagram represent that:

- 55% of experts have work as an external consultant.
- 40% of experts have never work as an external consultant.

g) As a consultant :

a) What types of companies have you been recruited as external consultants?



Figure 4-18: Diagram of types of companies that experts work in as consultants

As we can see, the diagram represent:

- 50% are multinationals companies.
- 25% are big companies.
- 16.7% are small and medium companies.

b) How do they prefer to be paid?

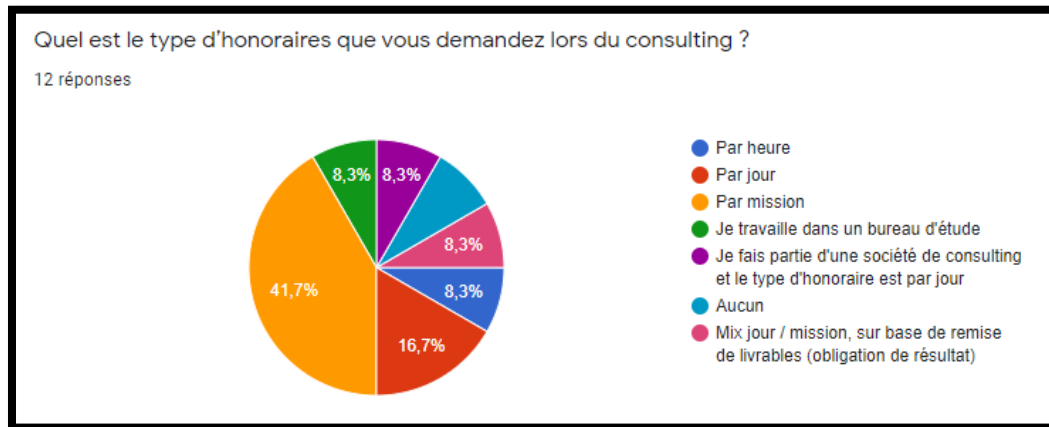


Figure 4-19: Diagram represent the type of fees.

As we mentioned before the payments methods change and most of consultants choose to be paid per day or per mission.

c) IF it was per day what would be the amount of money?

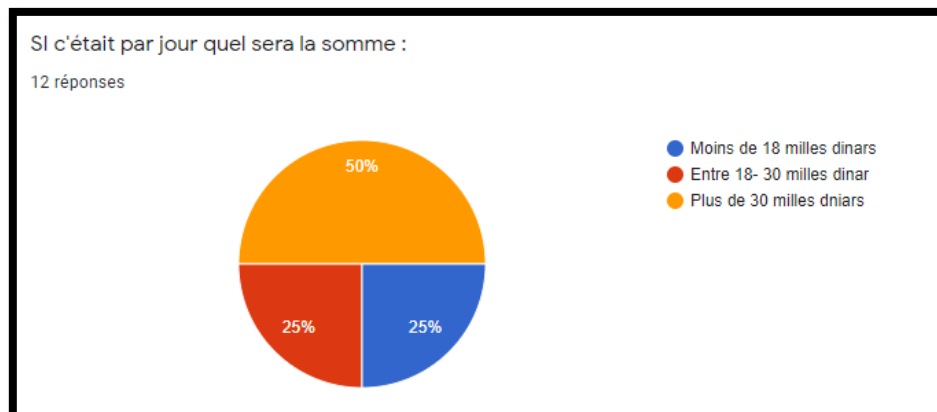


Figure 4-20: the amount of money that consultants ask for per day

The diagram represent:

- 50 % of consultants ask more than 30 thousand DA.
- 25% of consultants ask between 18-30 thousand DA.
- 25% of consultants ask less than 18 thousand DA.

d) The types of problems that they were asked to solve:

The table below resume the different problems those the consultants were hired to solve in diverse companies:

Sourcing, Optimisation de coût, Gestion des achats
Stratégie go to market
Standardisation des processus logistiques et implémentation d'un système d'information qui respecte les best practices des différents domaines fonctionnels
Calcul des paramètres MRP Mise en place S&OP
Mise en place de process d'approvisionnement, de transport, de distribution...
Import problems and solutions
Mise en place cahier des charges (AMOA), projet d'implémentation SAP, Mise en place d'une solution CRM
probleme de quotidien
Audit stratégique
gestion des flux, des changements
Mise en place processus SC, processus Achat, support, ERP & SI, mise en place S&OP / SRM. Mise en place organisation fonctionnelle. Formation.

Figure 4-21: Problems those consultants solved

e) How do clients contact you?

As we mentioned in the interviews that there is different methods to reach consultants, the most used are per recommendation, via firms and LinkedIn

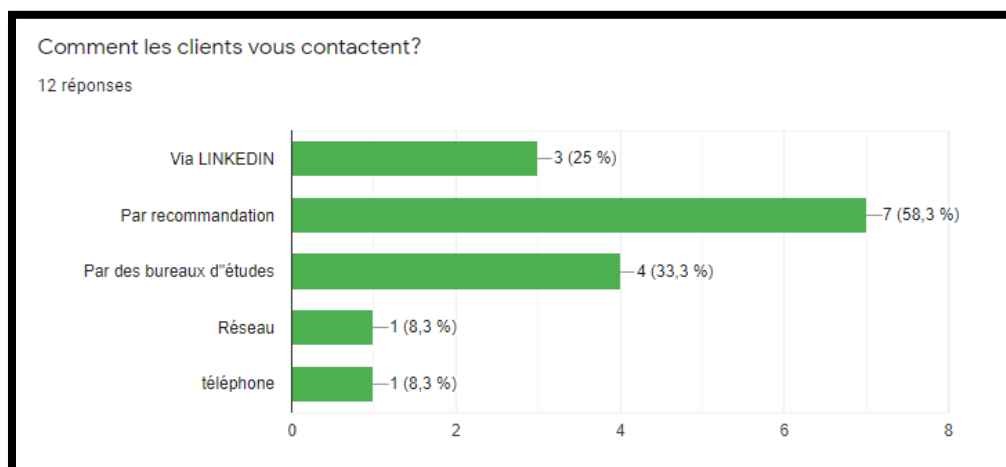


Figure 4-22: Methods used to contact consultants.

f) How long did it take to solve the problems?

The diagram below represent:

- 50% of problems need between 1-3 months to be solved.
- 33.3% of problems need more than 6 months to be solved.
- 16.7 % of problems need less than one month to be solved.

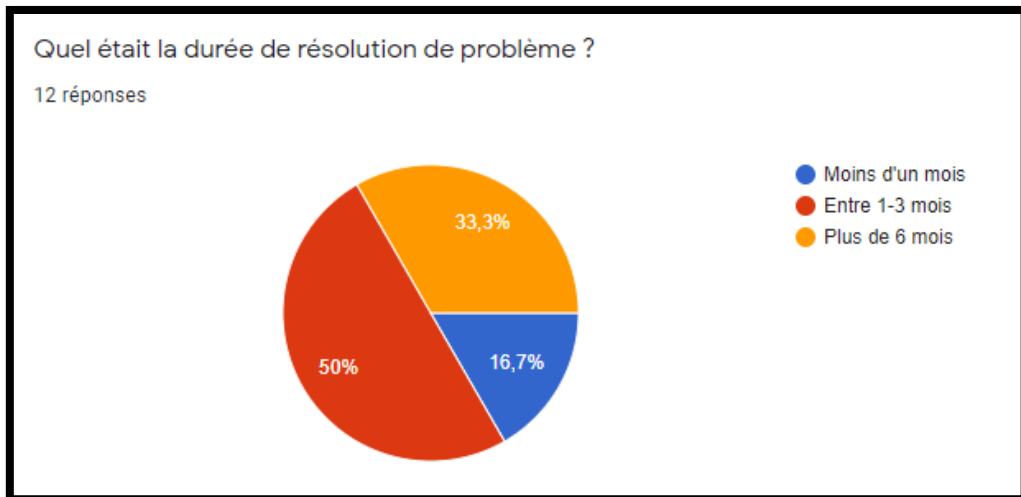


Figure 4-23: Diagram represent the duration of resolution of problems

g) Have you ever worked as a freelance consultant?

The diagram bellow shows that:

- 58.3% of consultants (7) worked as freelancer in consulting
- 41.7% of consultants (5) have never worked as freelancer in consulting.

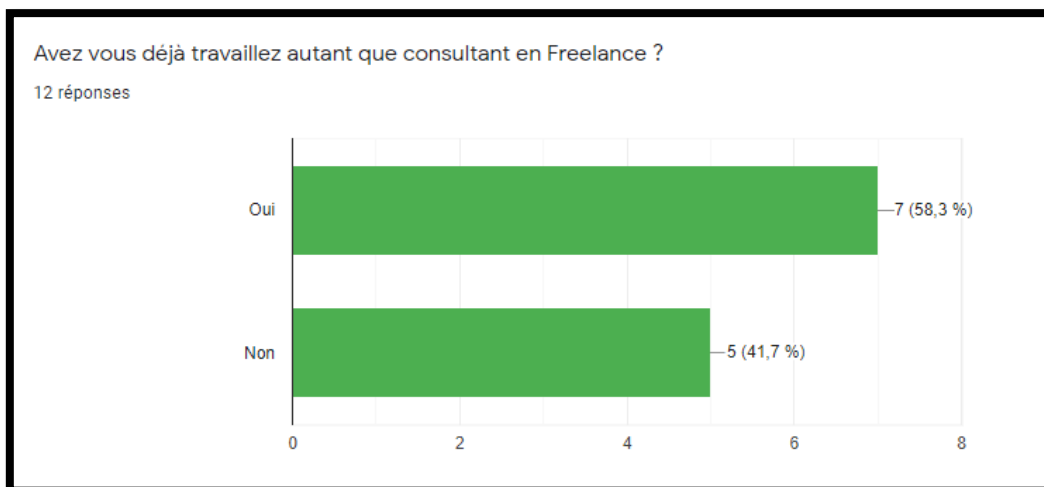


Figure 4-24: working as freelancer in consulting.

h) What problems have you faced as a consultant while working for an organization?

The next table carry on different problems that consultants face while working in companies; most of them were mentioned in the interviews:

Communication, Stratégie d'entreprise
Manque de données
La résistance au changement
Rétention de l'information, opposition au changement, qualité des data, interférences...)
Banking operations for import process
l'engagement des équipes, disponibilité des personnes, résistance au changement
les blocages humains
La définition de la mission
Aucun
résistance au changement
Problèmes classiques mais intégrés à notre chiffrage : 1/ résistance au changement, 2/ demandes additives du client non exprimées au départ, 3/ besoin mal exprimé, 4/ changement de gouvernance.

Figure 4-25: problems facing consultants in companies

h) Never worked as consultants:

We asked the experts who had never worked as consultants about the reasons that did not allow them to be consultants; we get many answers of witch we decide to share the followings:

- *"Si je pense à ça mais les opportunités sont très limitées "*
- *"Même en ayant pratiqué le consulting, je pense que les certaines entreprises Algérienne, tout en ayant conscience de leur déficit organisationnel spécialement dans la SCM ne sont pas prêtes à faire appel à des consultants pour y remédier et cela pour différentes raisons. "*
- *"Manque de temps de recherche des atouts à avoir en tant que consultant "*

After that, we asked them if they are interested in working as a consultant:

As we can see most (85%) of the experts are interested to be consultants one of them said that he wants to be a freelancer consultant.

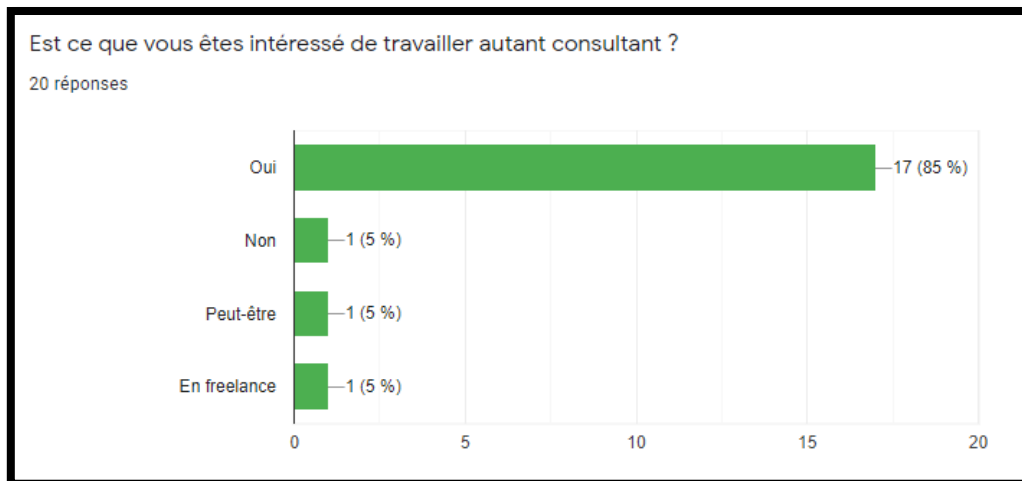


Figure 4-26: Diagram of experts that wants to be consultants

i) About our solution :

At the end of the survey, we take the opportunity to ask our form fillers if they are familiar with the concept of SCM, well most of them recognize it, in addition to be sure of their answers we requested them to tell us the different between SCM and Logistics.

The majority are aware of the real difference between the two concepts as the as the following passage shows:

"Supply est une démarche et logistic est un service d'entreprise"

"La supply chain management représente la gestion de la chaîne d'approvisionnement qui part de la matière première au produit fini. D'autre côté, la logistique consiste à la gestion des flux physiques en utilisant des méthodes et des process afin d'optimiser ces flux."

"SCM is mainly concerned about what happend outside the company while Logistic is specifically focused on organising, storing and moving goods between different supply chain"

Now, if they are familiar with SCM and Logistics do they have an idea about the Freelance concept?

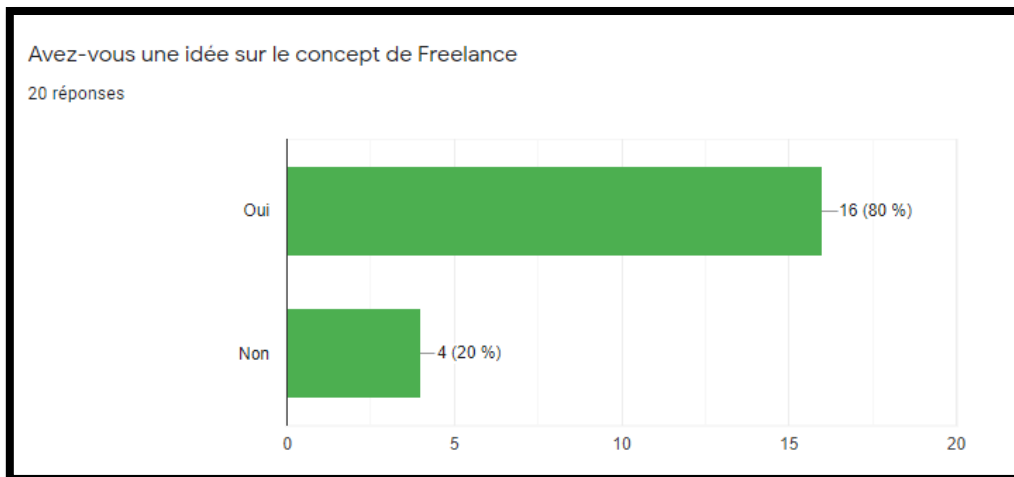


Figure 4-27: do the experts knows about freelance

We can see obviously that most (16) said that they know about the concept of freelance and only four said that they do not.

Finally to end the survey the last question was:

Will you use a solution that puts you in direct contact with companies (as a freelance consultant to propose solutions) or with the consultants (as a company to look for solutions)?

Some of the form fillers find the question not clear, so we reach out to him and explained our project, but most of the other said that they would use a solution if it exist that make that link between the two sides': consultants and companies.

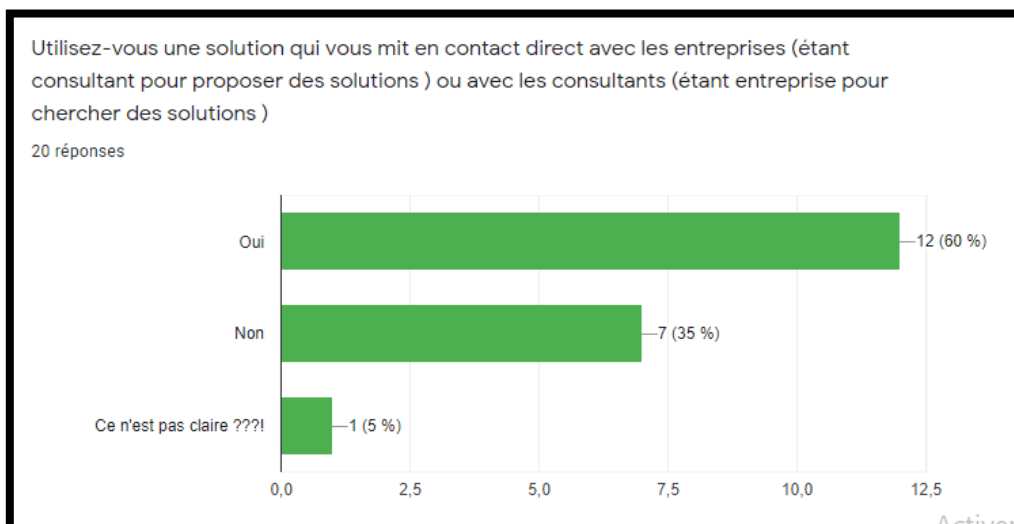


Figure 4-28: The average of acceptance of the solution

6. Industrial activities of TLEMCEN city:

The industrial group of TLEMCEN city (CHETOUANE and ABOU TECHFINE) alone concentrates 4,000 industrial jobs out of 10,000 jobs in the city. In other words 25% of total industrial jobs.

This grouping includes the main industrial and tertiary activities at the level of the industrial, semi-industrial and shows that these zones offer more jobs than the other peripheral quarters, which are economically depressed⁴⁵.

The grouping of industrial and tertiary units at the level of the industrial, semi-industrial and represents an economic potential for the city, which needs to be developed. The vast land area occupied by the industrial zone is not fully exploited by investors, manufacturers, suppliers and industrialists. Several gaps have emerged, including the lack of basic equipment and infrastructure on the site and the problem of public transport.

We are now going to present tables containing industrial activities of the TLEMCEN grouping:

We add also a table of the tertiary activities in TLEMCEN city which we can define as all of services occupations such as Transport, communication, trade, health, education and administration. These tertiary activities are helping in the development of the primary and secondary sectors. Tertiary activities, by themselves, do not produce a good, but then they are an aid or a support for the production process. So these are as well known as support services.

Then after that, we bring a map that shows how the economic activities presented on the tables are distributed in TLEMCEN city (CHETOUANE and ABOU TECHFINE).

By the end as we all know The economic sector occupies a primordial place in the development of the cities, while the development strategy of TLEMCEN does not include this sector, which is reflected in a high unemployment rate (65% of the population of working age are unemployed), and a falling purchasing power.

We can say that this comes down first and foremost to the weakness of the secondary sector, that include industry and companies producing material goods and tertiary companies producing immaterial goods, as well as the absence of attractiveness factors, lack of services to companies and inhabitants, and a poorly performing public transport network, and underdevelopment of telecommunication technologies..., in the second place, the poor exploitation of tourist potential in terms of services, infrastructures, hotels...

⁴⁵ In economics, depression is a serious form of economic crisis. It consists of a significant and lasting decrease in production

Zone industrielle Chetouane		
société	activité	N° d'employés
SITEL	Câbles, fibre optique, téléphone fixe, interphone, caméra de surveillance	117
SORIMAP	Armoire pour l'armée	225
SONACOME	Pièces détachées de véhicule	215
SONALGAZ	/	104
SONATRACH	Distribution de gaz	135
La source	Production de produit alimentaire	63
Belkaid	Production de produit alimentaire	48
L'exquise	Production de produit alimentaire	117
SARL	Production de la tuyauterie	115
SOITEX	Textile pour l'armée	163
CANAL PLAST	PVC	67
CANAL PLAST	PHD	64
Agro-industries	Montage des tracteurs et fabrication des pneumatiques	137

société	activité	N°
Aquatique	Soudure des citernes, etc....	57
Atelier de marbre	Fabrication des pièces en marbre	/
BRIXI textile	Production des tissus	/
ECOPACK	Production de papier	115
Méga-papier	Production de papier	47
Atelier textile de	Production des matelas et des couettes	42
Béton. P	Production de béton préparé et livraison	45
Papèterie Amine El	Imprimerie dans le papier	73
Usine polyester	Production de polyester	/
Matériaux construction	Produire la tuile, revêtement des murs	/
Usine serviette papier de en	Produire les serviettes, les jetables et les couches pour bébé	/
Nescafé	Produits alimentaires	/
Malta Atlas	Production des matelas	137
Minoterie maghrébin	Produits alimentaires	43
Minoterie Tafna	Produits alimentaires	49

Zone semi industrielle Abou Tachfine		
société	activité	N° d'employés
S.I.R.E.W.I.T	Bois et papier	16
SERELEC	/	/
EGETHYT	/	17
SOREPEC	Industries divers	04
HAMZACHERIF Frigorifique	Comptoirs frigo chambre froide	15
RUIPLAIT	Yaourt	03
ETSKAZIN TANI RACHIDA	Fabrication des Carreaux dalle de sol et granito	07
El Kiffane		
société	activité	N° d'employés
AGRO EMBALLÉ BARKA AHMED	Industrie plastique et emballage	20
SARL MINO	Boisson jus production et distribution	25
HORIZON	Yaourt	04
ETS AFROLAIT	Yaourt-fromage fondu	12
Fromagerie la Capricienne	Fromage	08
BABYLAIT	Fromage fondu	03
Fromagerie MKALCHA	Fromage	05

Figure 4-29: The industrial activities of Tlemcen grouping⁴⁶

⁴⁶ (Annuaire de statistique de Tlemcen s.d.)

Société	Activité	N° d'employés	localisation
SNTR	Parking pour 120 bus	135	Zone industrielle
Parc commune	Parking et stockage à l'interet de commune	57	
URBAT	Bureau d'étude	48	
Scanner	Contrôle de véhicule	12	
Scanner COTA	Contrôle technique de véhicule	30	
Administration de l'exquise	Bureaux pour gestion des produits+laboratoires	30	
Dépôt	Stockage	05	
Tapis d'or	Stockage+livraison	43	
Fleche bleu	Stockage et livraison à toute distance	40	
Volkswagen	Service après vente+stock	44	

Figure 4-30⁴⁷: Tertiary activities of Tlemcen city

⁴⁷ (Annuaire de statistique de Tlemcen s.d.)

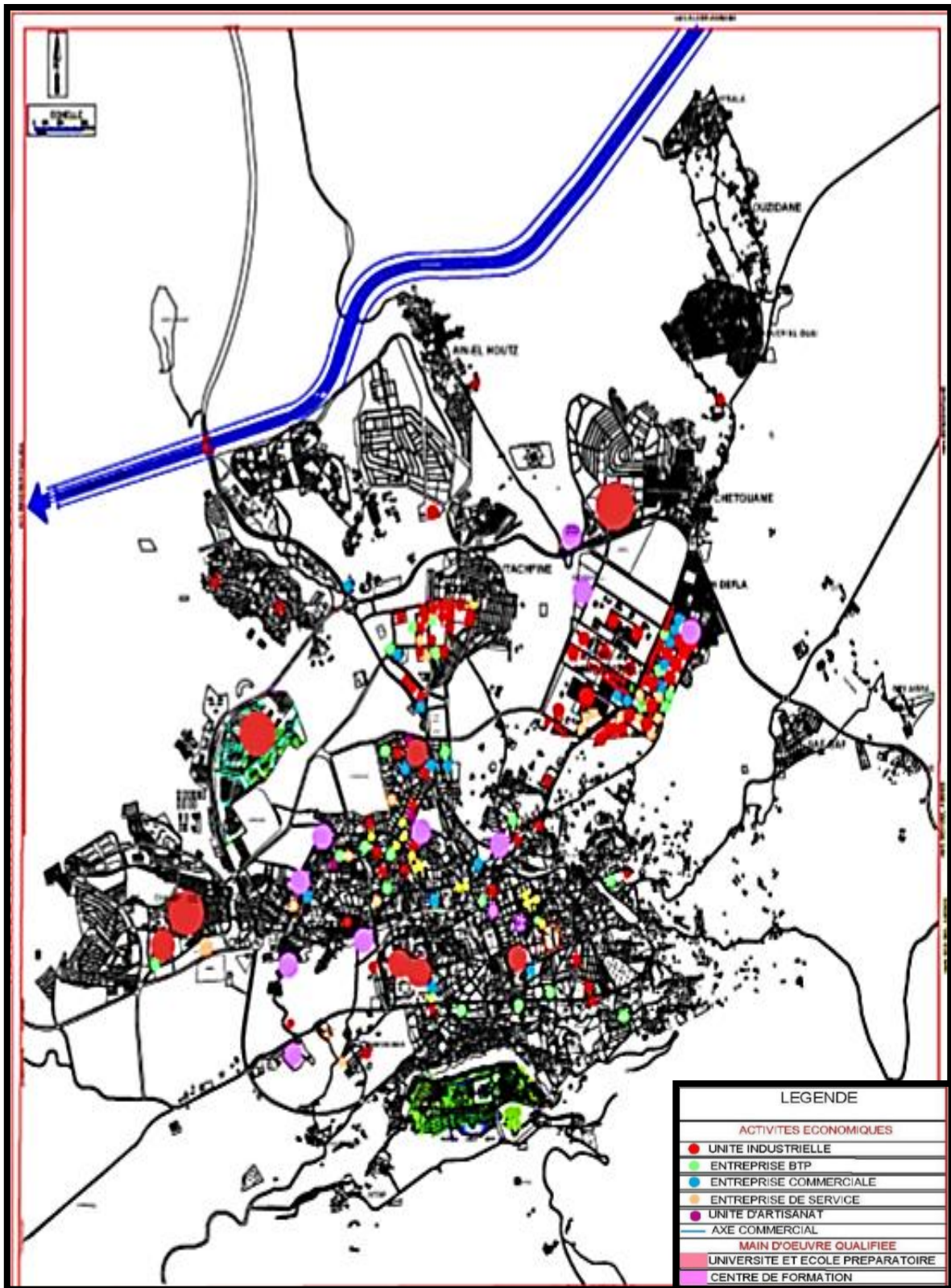


Figure 4-31: distribution of economic activity in Tlemcen city⁴⁸

⁴⁸ ((Tlemcen, architecture departement:un business centre pour une agglomération Tlemceniene innovante et compétitive s.d.) s.d.)

7. Conclusion:

Startups grow in cooperation with multiple stakeholders and various investors based on market orientations, social study and innovation.

In this chapter, we tried to identify and analyse factors that can affect the growth of our startup company according the Algerian local market.

Moreover, we had the chance to deal with experienced managers and benefit from their feedback and advice to improve our business model.

This market study is a tool that allowed us as entrepreneurs to validate the commercial feasibility of our project as well as to fulfil many other objectives such as:

- Studying and understand the Algerian entrepreneurial Ecosystem
- Detailed analysis for our clients (who are they? How they behave? What are their needs? Where can we find them?)
- Preparing our communication strategy.
- Establish our business model.
- Determined payment method.

5 Chapter 05: Design and Implementation of the Solution

1. Introduction:

Now days, technology plays a major role in the development of industry. Companies are racing to apply scientific methods and advanced materials to use technologies more efficiently in order to reduce costs and enhance productivity.

One of the results of technological advance is the birth and the rise of startups especially the type that helps other industries to improve their performance such as talent platforms and freelance platforms, companies are seeking for new talents that can perfectly finalize their projects in a short time with a good price and obtaining the best results.

Now, more than ever, due the **Corona Virus Pandemic**, people are more aware of remote activities, such as virtual schools, virtual meetings and virtual work. During this crisis, local companies had no other option but to learn how to practice business online. This has encourage us to proceed with the realization of our startup company.

In this chapter, we will present you our solution: IFEC, which is a freelance website, dedicated for industrial consulting moreover, we will explain and demonstrate our business model, our work strategy and give you details about the methods and the tools to elaborate this project.

2. About IFEC

2.1 The solution

IFEC: Industrial Freelance Experts & Consultants is the first Algerian platform for remote work that spots the light on industrial consulting and freelancing , bring visibility to supply chain management by providing a virtual workplace where both employers (individuals , project holders , agencies and firms) and supply chain experts(managers , talented engineers) meet to do business in a flexible freeway .

2.2 IFEC team

IFEC is the fruit of 5 years of industrial engineering and of SCM passion for two young female students, freshly graduated. The idea was to bring supply chain management consulting culture into the local Algerian companies to improve their performance and contribute in the economic growth.

Our team consists:

Two (2) industrial engineers:

- Imane BENNECIM
- Zineb ELHASSANI

One (1) web developer:

- Abdelbassit BOUAZZAOUI

One (1) lawyer:

- Feth-ALLah BENSEFIA

3. IFEC strategy

In order to proceed with the creation of our startup, we adapt "design thinking" as a work method.

The following figure illustrate the steps of design thinking:

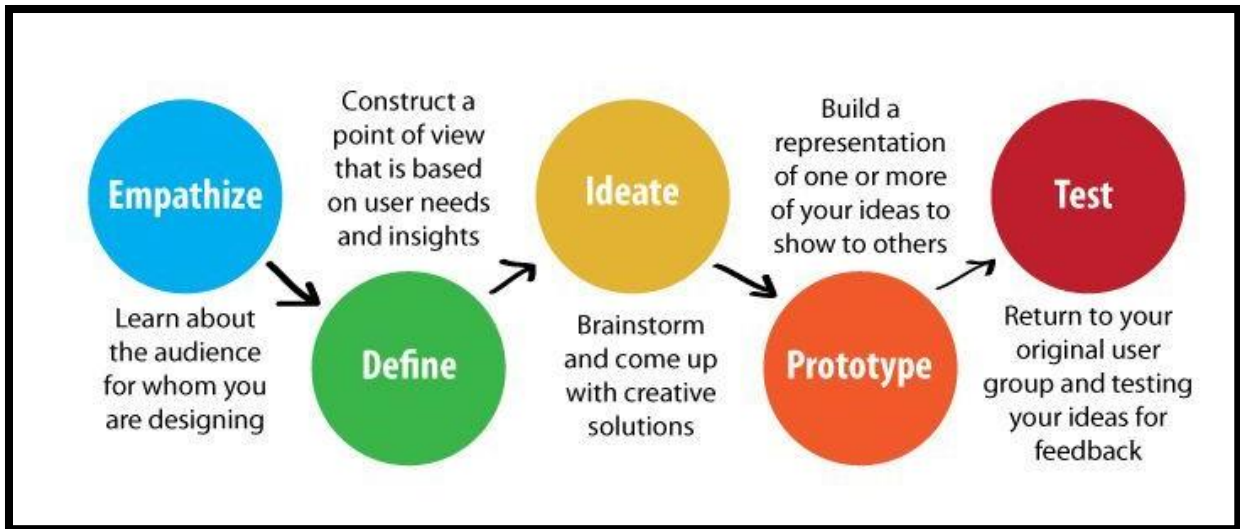


Figure 5-1: the steps of design thinking.

Source: www.voltagecontrol.com

3.1 Mission

Our mission is to create a digital workplace dedicated to the local industries full with opportunities for Algerian SC experts to find the suitable flexible job offer they need and do the business they want. In another hand, we help the employers to hire the expertise in addition, the talent they are looking for to get the job done.

3.2 Vision

Our goal is to build new sort of business that keeps up with the technological changes and the industrial challenges.

We aim to create a community that adapt and spreads the culture of the three aspects: consulting, freelance and supply chain management in the Algerian market.

Moreover, our objective to be part of the Algerian GIG economy and contribute in rising the awareness about virtual entrepreneurship and startups.

3.3. Business model canvas

The business model canvas⁴⁹ is a strategic management tool to quickly and easily define and communicate a business idea or concept it is a one-page document, which works through the fundamental elements of a business or product, structuring an idea in a coherent way.

⁴⁹ (Medium s.d.)

BMC contains nine boxes that represent different fundamental elements of a business; it is composed from three main parts:

The right side of the canvas focuses on the customer or the market (external factors that are not under entrepreneur's control) and it is called the front stage. While the left side of the canvas focuses on the business (internal factors that are mostly under entrepreneur's control) and it is called the back stage. The right and left side meet in the middle, at the **value propositions** that represent the exchange of value between the entrepreneur's business and his customers.

3.3.1 BMC elements

- a) **Customer segments:** this element represent the groups of people you target and want to sell them your product or service.

In our project, through IFEC we target: small companies or companies about to launch who have difficulties to manage their resources. We aim to target the city of Tlemcen as a start

- b) **Customer relationships:** In this element, we describe the type of relationship that will relates us with the customer and how will we interact with them.
- b) We mainly reach out to our customers through our website IFEC, we also provide our present through our pages in social media platforms (Facebook, Instagram, Tweeter and LinkedIn) our call center is also available 24/7.
- c) **Channels:** this block describe the ways or channels we use to promote our business.
- c) We choose to do that through social media ads, our hired experts' network and through our presence in industrial events.
- d) **Revenue streams:** These elements describe how a company will earn money from selling their product or service to the customers.

In our business plan, we offer multiples payments methods that will be tested and modified according to the market needs

- e) **Key Activities :** this section represent all the key activities we must do to make our business model work, from offering the value proposition , reaching out costumers, maintain a good relationship with them to earn revenue .

In IFEC, we make sure to do the following tasks:

1. Provide continuous contact between experts and companies through the platform
2. Provide the needed expertise and skills for companies
3. Make sure to satisfy both sides
4. Maintain trust between the users and us by creating a reliable payment system.

f) Key Resources: In this element, we list down all required inputs to assure the well function of the key activities.

In IFEC, we need the following resources:

- **Human:** web developer, a designer and a lawyer as a start.
- **Financial:** cash and money in order to create the website and lunch the service.
- **Intellectual:** brand, patents, IP, copyright.
- **Physical:** As a start, we need an office.

g) Key Partners: they are the external companies /suppliers that will help us carry out our key activities.

d) In our project our main partners are:

- Supply chain managers and experts.
- Industrial consultants.

h) Cost structure: In this block, we identify all the costs associated with the offer of the value proposition to maintain all the other services.

e) In our project, we list the following costs:

1. Creating the platform.
2. Website hosting.
3. Marketing spends.
4. Office rent.

i) Value propositions: This is the heart of any business; it is what makes our business different from other similar projects. In addition, it represents our unique solution for a problem faced by a customer segment, or that creates value for the customer segment.

In IFEC, we provide the following value proposition:

1. IFEC is the first Algerian industrial freelance platform.
2. IFEC is dedicated only for supply chain consulting.
3. IFEC provide high quality consulting services with a resalable price.
4. IFEC give companies and individuals the opportunity to benefit from talented SCM experts easily.

The Business Model Canvas

Designed for: **IFEC Startup**

Designed by: **Imane BENNECIM**
Zineb ELHASSANI

On: Day Month Year
Iteration: No.

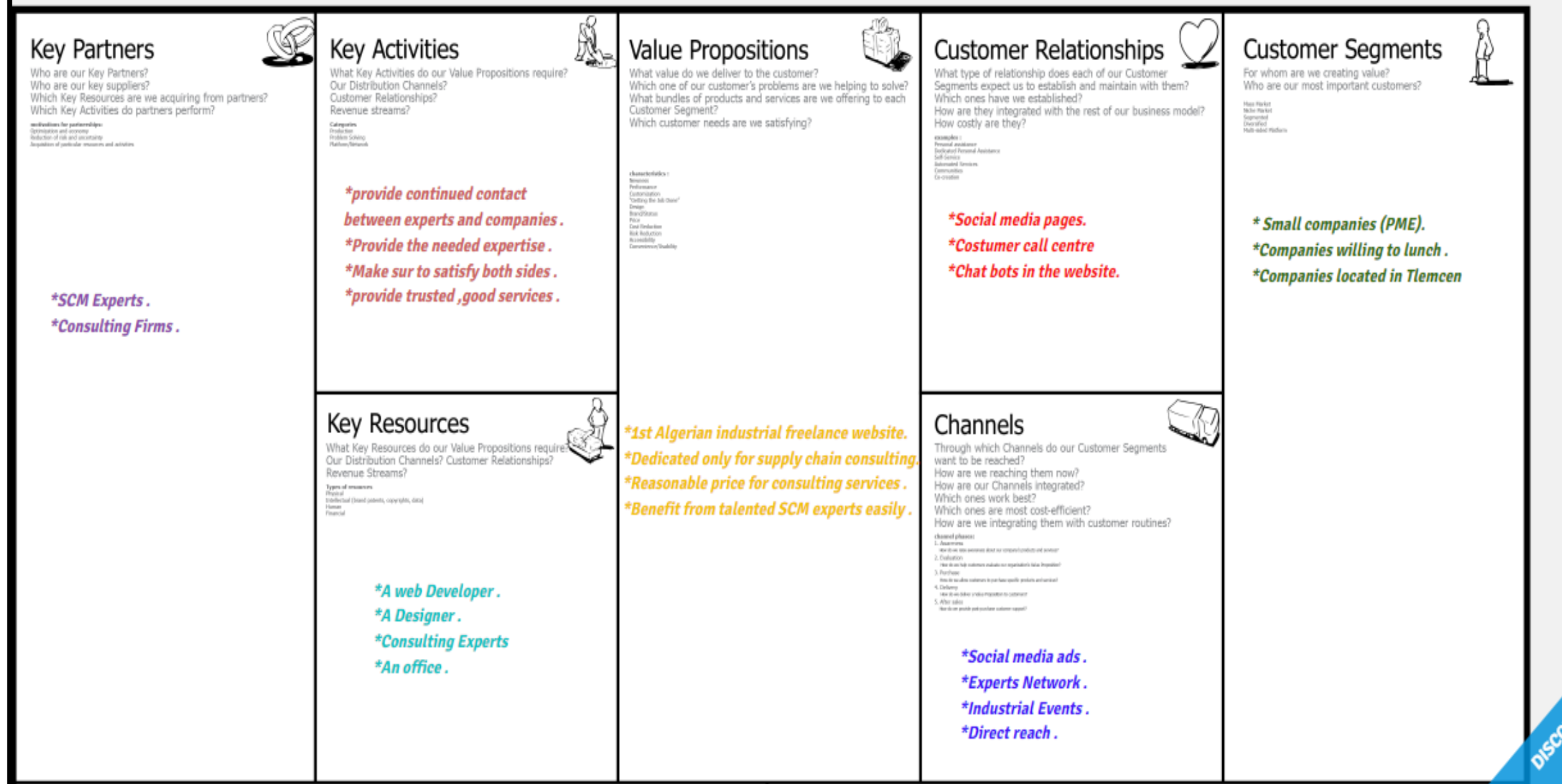


Figure 5-2: IFEC's BMC

4. Graphical representation of data

4.1 Conceptual Data Model (MCD)

The purpose of the Conceptual Data Model (MCD) is to formally write the data which will be used by the information system. It is thus a representation of the data, easily understandable, allowing to describe the information system using entities⁵⁰. The picture below is a representation of IFEC's MCD:

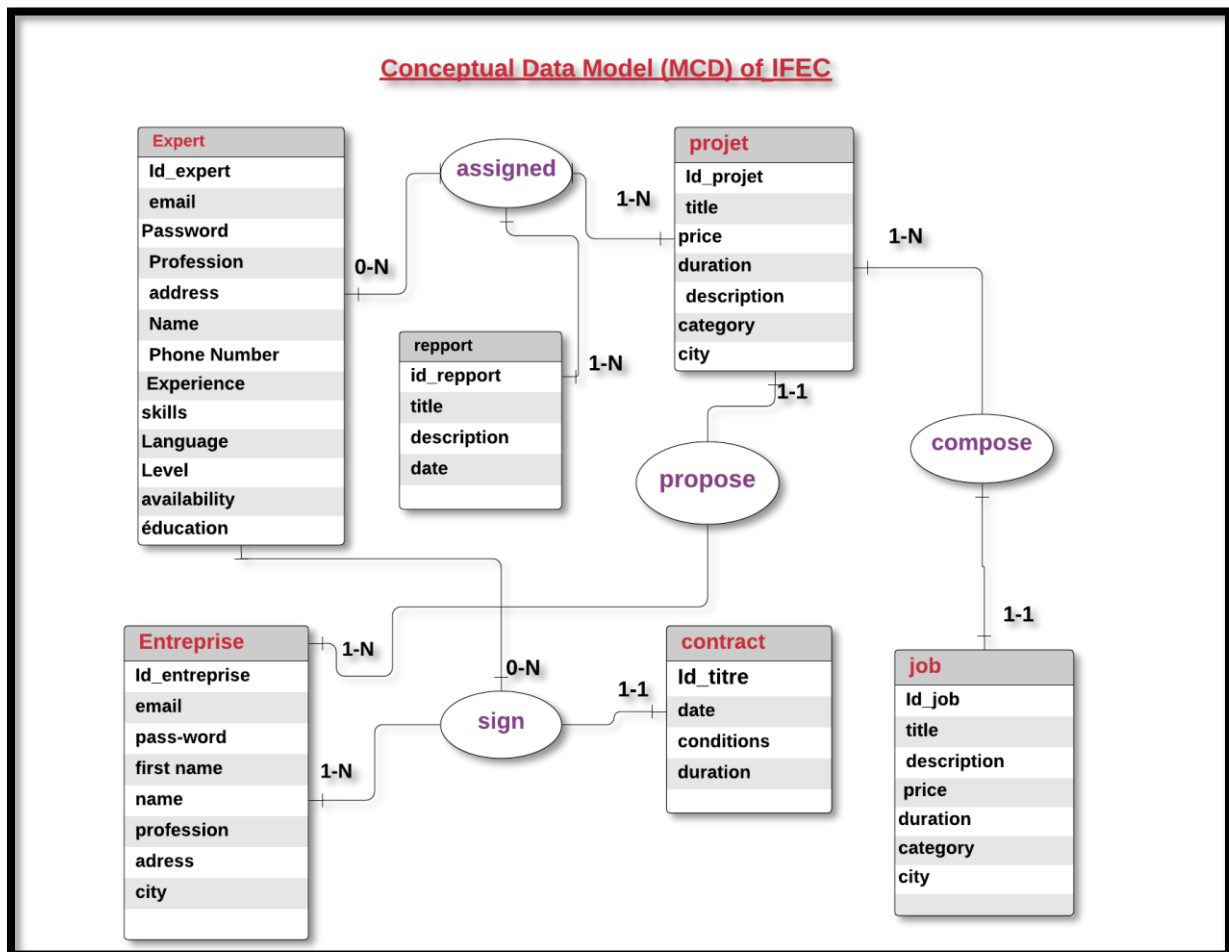


Figure 5-3: IFEC's MCD

4.2 The data logic model (MLD):

The logical data model consists of describing the data structure used without reference to a programming language. It is therefore a question of specifying the type of data used during processing

⁵⁰ (<https://www.commentcamarche.net/contents/659-merise-modele-conceptuel-des-donnees> s.d.)

Thus, the logical model is dependent on the type of database used⁵¹.

His IFEC's MLD:

Expert : (id_expert, name, first name, email, password, phone number, address, city, profession, skills, experience, languages, level, mission location, mission duration, availability, past experience, title of profile, education, employment, picture).

Projet : (#id_entreprise, id_projet, title, description, Price, duration, category, city).

Entreprise: (id_entreprise, email, Password, Name, first Name, profession, phone-number, address, city)

Contrat : (id_contart, #id_exexpert, #id_entreprise, title, date, conditions, duration).

Job : (#id_projet, id_job, title, description, price, duration, category, city).

Affecter: (id_expert, id_projet, #id_repport)

Rapport: (id_repport, text, date, title)

5. How its work:

In this part of this chapter, we explain how freelancing using IFEC works does from both perspectives: freelancer (Expert) and employers (companies)

6.1 Freelancer expert:

- Freelancer search for a job (Find Job) to find freelancing opportunities.
- Or he can choose a job from the job list
- The freelancer can filter the search based on: the category, region or date.
- The freelancer must login (or sign-in in case he is new to the website) using an email and a password.
- In case of a new user:
 - ✓ The freelancer must subscribe by inserting full personal data, email address and agree to the platform's terms and conditions.
 - ✓ Freelancer will receive a confirmation email.
 - ✓ The freelancer confirm his identity by inserting the verification code.
 - ✓ After identity confirmation, now the freelancer (X) is officially a member of the platform, however he must fill in some information to be able to use the services of the platform.
 - ✓ (X)'s profile now is ready to be used
 - ✓ (X) can find and search for jobs on IFEC
- In case (X) find a good job and he wants to work on it :

⁵¹ (<https://www.commentcamarche.net/contents/659-merise-modele-conceptuel-des-donnees> s.d.)

- ✓ he click on the job offer
- ✓ click apply
- ✓ fill in the submission information
- ✓ Write his motivation to work on this job
- ✓ Precise the date and due date and a price for his service
- (X) Valid the work, and waits for a reply.
- (X) Will receive an email in both cases: if he is accepted or refused.
- If (X) is accepted , he and the employer discuss the final details for the job price, due time , duration
- If they both agree, (X) will receive an electronic work contract.

6.2 Employer:

- the employer post a job (job/Project)
- The employer fills out the project form:
 - ✓ The employer chooses a name (title)
 - ✓ The employer specifies whether the service requested is a job (mission) or a project (file).
 - ✓ The employer writes a description.
 - ✓ The employer can attach an explanatory file.
 - ✓ The employer specifies the tasks (skills for the job).
 - ✓ The employer specifies and sets the rate of work ordered.
 - ✓ The employer sets the duration and date.
- The employer must be registered to be able to continue the process.
- The employer fills in the contact information (Company registration form): name of the company, field of activity....
- The company chooses a password and an email verification is mandatory.
- Company Z has a valid account on the platform.
- The job of Z will be analyzed and verified by the IFEC team in 24 hours.
 - ✓ If Z's job is validated, it will be automatically posted.
 - ✓ A notification and an email will then be sent to Z
- Z will be receiving applications from Freelancers.
- Z will analyses the applications, check the skills, experience and cover letter.
- Z chooses the desired profile.
- An electronic contract will then be sent to Z and the freelancer.
- If Z accepts the conditions and signs the contract: he contacts the freelancer.

Example:

- Z chooses profile X
- Z sends a message to X
- Z and X sign the contract after fixing the price and duration.
- Z and X get in touch on the chat box of the IFEC platform.

Both parties are under the obligation not to share their personal information, otherwise they will be banned by the admin. In addition, the project will be cancelled automatically.

6. Terms and conditions:

IFEC.com is an online Marketplace for industrial freelance that enables firms and companies (Employers) to search for (find) and make a contact (hire) with providers of professional services in supply chain management (Freelancers ; collectively with Employers registered as Users) .

This User Agreement describes the terms and conditions which you accept by using our Website or our Services. By visiting or using the services available of www.IFEC.com (the "Website"), you agree to be legally bound by these Terms of Service.

Our services are reserved to persons legally capable of signing contracts under Algerian law. Our services are not available for minors under 19 years old. If you do not meet these conditions, you should not use our services.

This agreements CONTAIN IMPORTANT INFORMATION REGARDING YOUR LEGAL RIGHTS, REMEDIES, AND OBLIGATIONS **would you please read it carefully.**

Greetings, team IFEC.

Key terms:

Account: means the account associated with your email address.

User: an individual who visits or uses the Website.

Expert: a User that offers and provides services or identifies as a Seller through the Website. A User may be both a Buyer and a Seller under this agreement.

Employer: any person with a need and wishing to use the services of a freelancer.

Job: any work that an employer can offer.

Project: a group of jobs.

Service: any skill that freelancer is good at and can sell it to an employer.

Post a job: the action that allows you to post a service as an employer.

Apply: the action that allows you apply to a job as a freelancer.

Profile: the user's personal space in the website. Can be a freelancer or a customer.

Tags: key words describing the nature of the service.

Tasks: the jobs that the freelancer must accomplish.

My projects: the jobs offered by the employer.

In progress: the job is already taken by another freelancer.

Accomplished: the job is already done by another freelancer.

Main terms:

- Our services are reserved to persons legally capable of signing contracts under Algerian law. Our services are not available for minors under 19 years of age. If you do not meet these conditions, you should not use our services.
- Only members can use this platform. The subscription is free using a valid e-mail address and a personal phone number in order to receive notifications, messages ...
- IFEC cannot be held responsible for the words of its affiliates.
- However, we do not guarantee the quality of the service provided.
- In case of complains we can refund the customers (up to 87%) upon request for the following two reasons:

1) The freelancer exceeds the agreed delivery time.

2) The order received does not meet to the description of the service ordered.

- Users cannot offer or accept payments outside this platform. Otherwise, the admin reserves the right to delete the accounts of users who do not respect this condition.
- Users cannot exchange contact outside this platform. Otherwise, we disclaim any responsibility in case the customer or the freelancer are scammed.
- We retains the right to use all delivered and published works for marketing and promotional purposes of IFEC.
- IFEC is not liable if its users, for any reason whatsoever, do not check their emails for important notifications.

Freelancer:

- Freelancers create accounts on IFEC to allow employers to hire them.
- Freelancers must use valid personal data (name, phone number, email address, location).
- Freelancers can work on separated jobs or on projects.
- Freelancers are invited to more communicate with their employers before taking the job in order to fully understand their needs.
- Freelancer are not allowed to share any communication channels outside of IFEC.
- Freelancers must provide regularly progress reports.
- Freelancers are only allowed to receive payment using IFEC payment method.
- Some of the services on IFEC are delivered physically (arts and crafts, collectible items, etc.). For these types of jobs, freelancers may decide to add shipping charges.

Services:

- Each service must contain tags that can facilitates for users to search for.
- The services posted are analyzed and verified by the admins of IFEC, any violation of the following terms and conditions, the service will be deleted:
 - ✓ Illegal or Fraudulent services
 - ✓ Copyright Infringement, Trademark Infringement
 - ✓ Adult oriented services, Pornographic, Inappropriate/Obscene
 - ✓ Spam, nonsense, or violent or deceptive services
 - ✓ Exceedingly low quality services

- Promoting IFEC and/or IFEC Gigs through activities that are prohibited by any laws? as well as through any marketing activity that negatively affects our relationships with our users or partners.
- Each service posted is based on reliable industrial skills.
- All skills must reply to a job related to the supply chain management.

Employers:

- Employers create accounts on IFEC to hire freelancers that can accomplish their job.
- Employers whether they represent an organization or individual must provide valid data (name, phone number, email address, location).
- Employers choose freelancer whom their skills meet their job needs.
- Employer are not allowed to offer payment outside of IFEC.
- You can in no way offer to pay the freelancer by any other means than using the IFEC platform. If a freelancer offers you any other way, please report it immediately to the admin.
- IFEC retains the right to use all publicly published delivered works for IFEC marketing and promotional purposes.
- Employers must precise the type of work they post (job or project).
- Employers must precise if the job posted require travel or physical meetings.

Jobs:

- Any posted job must contain tags with the skills need in order to allow freelancers to find the job the meets their skills.
- All posted jobs are analyze and verified by IFEC team before posting.
- Any posted job must contain the following information: title, skills required, duration, location, price and employer's name.
- Employers receive regularly progress reports from the freelancer working on the job.
- The job will be “taken” once the employer choose a freelancer.
- A job or a project is “accomplished” once the employer approve the work delivered by the freelancer.
- We encourage our users to try to settle conflicts amongst themselves. If for any reason, this fails after using the Resolution Center.

Handling jobs:

- When an employer hires a freelancer, the freelancer is notified by email as well as notifications on the site while logged into the account.

- Freelancers are required to meet the delivery time they specified when creating their service. Failing to do so will allow the employer to cancel the Order when an Order is marked as late and may harm the freelancer's status.
- Freelancers must send completed files and/or proof of work using the Deliver Completed Work button (located on the job page) to mark the job as Delivered.
- Users are responsible for scanning all transferred files for viruses and malware. IFEC will not be held responsible for any damages, which might occur due to site usage, use of content or files transferred.
- Employers may use the "Request Revisions" feature located on the job Page while a job is marked as Delivered if the delivered materials do not match the employer's requirements sent to the freelancer at the beginning of the order process.

Copyright:

This website and all of its content, including text, still or animated images, databases, programs, etc., hereinafter referred to as the Website, is protected by copyright. All elements of this website are © IFEC- all rights reserved.

7. Tools used

Our developer Abdelbasset BOUAZZAOUI used PHP as a coding language through Wordpress.

Wordpress: is a free and open-source content management system written in PHP and paired with a MySQL or MariaDB database. Features include a plugin architecture and a template system, referred to within WordPress as Themes.

The website contains basic features that reply to our business model; such as, post a job, find Expert, search for a job and the registration.

However, some features cannot be functional until we lunch and test the website.

8. E-contract

The contract contains a set of conditions and agreements that ensure the smooth running of the work guarantee the confidentiality of the members and preserve their rights.

What does a contract contains:

- ✓ Title of the job.
- ✓ Date and time.
- ✓ The two sides of the contract (with personal data).
- ✓ Terms of the contract (rights and obligations).
- ✓ Duration of the contract.

- ✓ Payment agreements.
- ✓ Electronic signature.
- ✓ Description of the job.
- ✓ Penalties.
- ✓ Reporting.
- ✓ Responsibilities

Example of contract: check appendix

9. Screenshots of IFEC website :

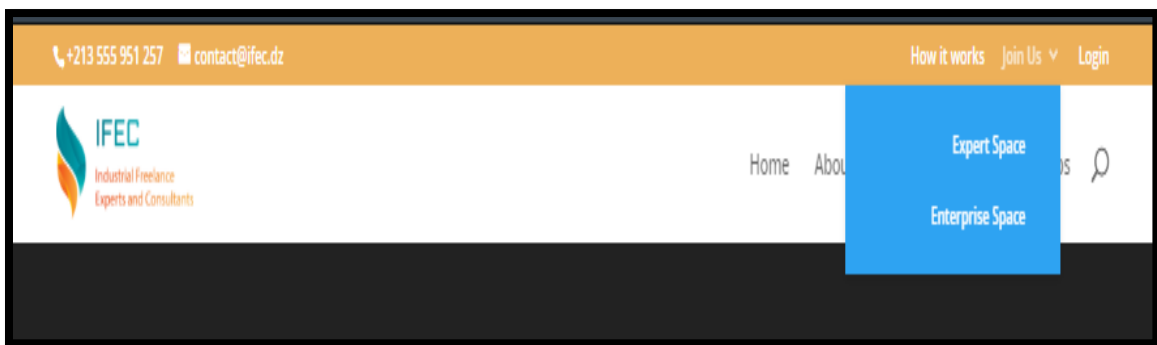


Figure 5-4: Join US.



Figure 5-5: IFEC home page

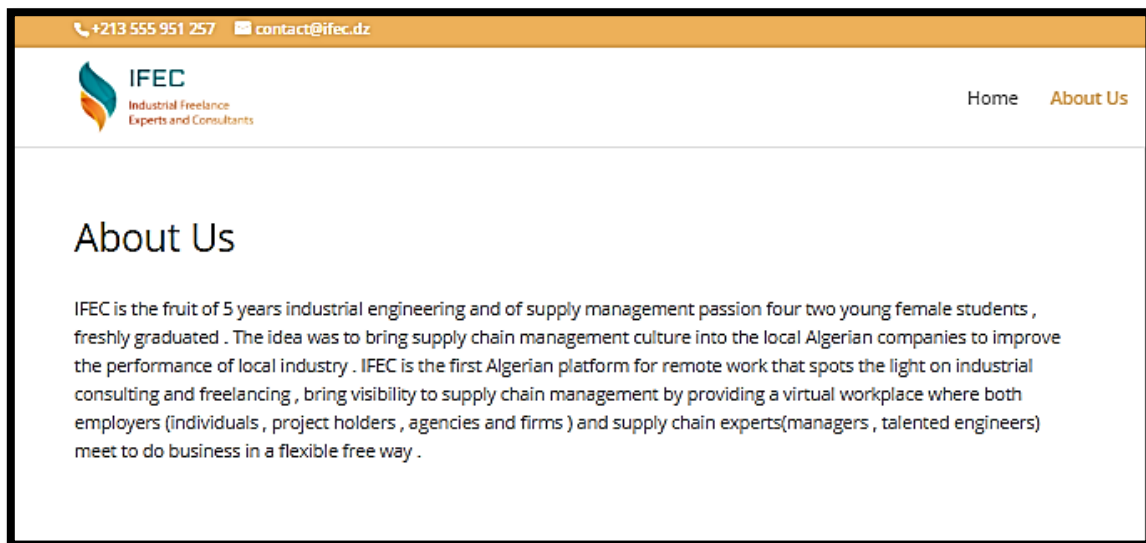


Figure 5-6: About Us.

+213 555 951 257 contact@ifec.dz

How it works Join Us Login

IFEC
Industrial Freelance
Experts and Consultants

Home About Us Post Projects Post jobs

Post this job and get Quotes from top Freelancers for free

Want to post a project?

Select Category *
Uncategorized

Give your Project a title *
Develop Android app for e-commerce site.

Describe the Project in detail *

Include expected deliverables, requirements and time frame for delivery.

File
Choisir un fichier Aucun fichier choisi

Post Job Save and Continue Later

It's free to post a job

- ✓ Access global talent pool
- ✓ Get Quotes within hours
- ✓ Track progress in the WorkRoom
- ✓ Protect payments with SafePay

Figure 5-7: Post Project

+213 555 951 257 contact@ifec.dz

How it works Join Us Login

IFEC
Industrial Freelance
Experts and Consultants

Home About Us Post Projects Post jobs

Post this job and get Quotes from top Freelancers for free

What work do you need to get done?

Select Category *
Uncategorized

Give your job a title *
Develop Android app for e-commerce site.

Describe the job in detail *

Include expected deliverables, requirements and time frame for delivery.

File
Choisir un fichier Aucun fichier choisi

It's free to post a job

- ✓ Access global talent pool
- ✓ Get Quotes within hours
- ✓ Track progress in the WorkRoom
- ✓ Protect payments with SafePay

Figure 5-8: Post Jobs.

10. Conclusion

Lunching a start-up in the country is not an easy process the Algerian entrepreneurial ecosystem is not yet prepared on so many levels: governmental level, cultural level nor technological level.

However, the process is difficult but not impossible as long as the entrepreneurs keeps working on his business model and testing his start-up to improve its performance.

In this chapter, we presented you our start-up prototype starting by introducing our team, our mission and our vision we well explained IFEC's business model.

Moreover, we represented our database graphically using MCD and MLD IFEC is a start-up company based on a web platform for freelance, in order to build this platform we hired an expert web developer Abdelbasset BOUAZZAoui

Abdelbasset used it tools to realize the website such as PHP as a coding language and SQL to execute IFEC's database in order to do business in a professional way, e established a set of terms and conditions to assure the well-functioning of the process using the help of a lawyer, Fath-Allah BENSFIA

Finally, any business require a contract to preserve both players rights and to agree on payment method, we tried to design examples of freelance contracts and make payment scenarios, however, we still must test our prototype to validate or modify our business model.

Conclusion

Conclusion

In order to conclude this thesis, we have elaborated a business plan of an Algerian startup, whose main activity is freelance consulting in the industrial field, within the scope of our final graduation project as industrial engineering students.

In this paper, we addressed challenges and opportunities of startups and three other concepts: freelance, consulting and Supply Chain Management in Algeria and how they could be seen as one of the main tools to drive economic and local Industry. The first objective of this thesis is to introduce readers to key words and concepts of the study, we spot the light on Supply Chain Management and emphasize the imperative role of industrial consulting, moreover, we got to measure the impact of freelance on the economy. The second objective of this thesis is to study and to investigate the Algerian industrial environment and local startup ecosystem in order to pinpoint the main issues and obstacles that hold Managers and consultants to do business in a fluid way. The third and final objective of the study is to provide an example of a startup that can relate industrial consultants with a high profile in supply chain management with companies seeking to ameliorate their performance through a freelance platform.

Thereafter, our work is centered on three axes:

First axis is composed of three chapters, the first one namely "Consulting General Background" is an introduction to consulting and where we tracked its evolution through history passing by the phenomena "Big Four". We also presented the main and known segments in the consulting industry, counting advantages and characteristics of a consultant. The second chapter namely "Freelance: the rise of GIG Economy", we followed the same process focusing on freelance as a modern sort of work, and presenting global statistics measuring the contribution of GIG economy in biggest economies in the world. In addition, we explain in this part how does freelance works and why freelance is the future of work. The third chapter "Supply Chain Management" is an insight about Supply Chain Management, its history and its importance in the ameliorating the performance of different industries we underline the role of a Supply Chain Manager in the implementation of the seven principles of SCM. These three chapters represent a theoretical study and stand as a preamble for the following parts of this work.

The second axis is the analytical part of the thesis and a preparation for the execution of our solution, where we study each concept in our local market and the ecosystem of startups in our country, this part is a one chapter work untitled Algerian Market: "Ecosystem and Industrial Environment", we pointed attention to analyze and collect as much information about: startups, Consulting, Supply Chain Management and Freelance in Algeria.

However, in order to establish a reliable data base, we set interviews with high qualified Managers that practiced consulting and some freelancers where they shared with us the profession's secrets (how they proceed with clients, how much they get payed, which type of companies they usually work with...), our interviewees also complained about multiple obstacles they meet when working (payment, leak of data, absence of SCM and Consulting and freelance culture...). In addition, we launch a survey online of 40 questions destined to

companies and consultants to use them as statistics. This project takes place in the city of Tlemcen, for that we decided that it will be the start of our project to lunch it and test it, so we studies the industrial area and market of the city (the number of companies, their field and sector of activity, location...).

Through this study, we can say that the integration of SCM and the spread of startup culture in the Algerian market is still in its beginnings, which offers a wild range of opportunities for entrepreneurs to innovate and make a change; however, this change must be supported by governmental decisions and financial funds.

The third axis is the last chapter in this research Design and Implementation of the Solution, which is the presentation of IFEC (Industrial Freelance Experts & Consultants), a freelance website dedicated from Supply Chain Consulting.

In this part, we guide you step by step to show you how we created the platform, we explained our Business Model justifying our decisions how and why passing by the tools we used to accomplish the project. We also provided our database using MLD (modèle logique de données) and illustrated the graphical pretension of IFEC using MCD (Modèle conceptuel de données). Finally, we gave details about how the platform works, user terms and conditions and the E-contract. We supported this chapter with screenshots of the website IFEC.

Creating IFEC, we based our study on the information given by the managers and consultants; however, in order to assure the satisfaction of our users after we lunch the website, our business model will change continuously to test and adapt it according to their needs.

The business plan carried out in this work aims to answer the problems identified at beginning and allows as to reach the objectives we set, through creating a solution that can help in the spread of the culture of startups, freelance, supply chain management and consulting, we also aim to enrich to local GIG economy and encourage the usage of technological tools and solutions in the industry.

This paper can be the motive for other students, researchers or entrepreneurs to create a startup business, it presents a database for local market that can be used and contribute in future studies and researches about the mentioned fields above.

Limitations

- An important limitation in this work is the CORONA global pandemic, which limited our resources, our research method and our movements. The situation effected our plans so we were forced to change it in order to accomplish this work in time.
- The first limitation is the lack of DATA. In order to create a business every entrepreneur need a profound market study based of reliable statistics and numbers; in our project, it would be so beneficial for us if we found studies from firms of the government. Regardless of our efforts to increase the respondents within the time given, we could not reach a good amount of interviews, survey replays, in addition, we could not reach out to enough information for the companies.

- A second limitation is the absence of E-payment, the thing that complicated the well function of our business plan; we still cannot decide which payment method that can guarantee a trusted secured service through our website.
- The third limitation is that the legal procedures are not clear yet, neither for startups nor for freelancers, which leaves a huge question mark on the evolution of the GIG economy.

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Appendix

12. Appendix

10.1 INTERVIEWS

Interview 1: Missis Nassiba CHARCHARI

1. About the consultant and the ways in which clients contact him/her:

My very first experience began in 2008 in charge of import in the companies that make medical equipment and I evolved in the course; I started as an assistant knowing that my field of study was deferred, I studied translation when I started in purchasing and import I trained myself I was in charge of the opening of documentaries, processing of goods, treatment with the forwarding agents, shipping companies, airlines with time I held the position of supply chain manager I took care of all that is purchasing; supplies; planning and all that I worked in the pharmaceutical and agro-food industries afterwards, so all this experience enabled me to build up what we call a supplier portfolio c.-i.e. a network: I have been in companies during my career, people who are in the same field and I have built a network and therefore I decided to relaunch myself in consulting towards the end of 2019, I was recommended by colleagues for companies that are mainly in the face of the launch as currently I work with 2 companies one is in the medical device and the other in the compliment food: new companies my role is mainly for the sourcing of suppliers, setting up the supply chain structure Est.

2. What you measure as a way to contact what is the same case for me.

First of all the recommendation and the visits of the fairs, which I did at the beginning of this year, I participated in an "Arab Heath" fair where I distributed my business cards, I proposed my services to even suppliers who are looking for customers on the Algerian territory, this is a bit of the supply chain and also business development: in other words, when you know the local market you can work in both sides: you can match the customer is the customer who is looking for a product to distribute or has manufactured or a supplier who is looking for a customer in Algeria.

The 3 method is that I am approached by research firms on LinkedIn who offered to send them my CV to set up their panel because you know research firms work in several areas and therefore they want to have their consultant specialized in each subject.

Recently a firm contacted me and asked me to send him my CV to see my experience in relation to their needs. He told me that we should build our panel of SC Consultants; we did not have a meeting afterwards.

This is just to explain how people contact us: by recommendation or by participating in fairs or via the LinkedIn network.

3. The stakes:

What is important is that now I am a freelancer but I have not yet officially launched my activity because I would first have to find out about the legal status of a Freelancer in Algeria, how does

he do it? It was not easy to travel and find out, how will I eventually pay my taxes? How will I declare my activity? How can I declare myself and in this sense. However, the fact remains that the status of freelancer is not quite clear in Algeria. That is why, in terms of regulations, it remains a little ambiguous.

4. On team or solo:

There are a lot of consulting offices that offer business development services, but in the supply chain management, there is a significant lack.

Right now, I am working on my own.

5. Supply chain management culture in Algeria:

The supply chain management is vast but generally when we talk about SCM in Algeria people only talk about Purchasing, "what is Purchasing and what is SCM it is the same thing" but it is not the same thing: Purchasing is part of the supply chain as well or there is who said it is supply purchasing.

Purchasing is the first part where we make the contract with the supplier, we close the contract, we do the pricing and everything; then it's the routing operation or finalize the contract, the negotiation afterwards comes the supply purchasing. In addition to that, we also have planning, stock management, that's all the parts of the supply chain.

There are companies where it still exists, where I was between 2013 and 2016 it was the case I understood that afterwards: I was in charge of import but the stock depended on the sales department but it is a non-conformity, in principle it is the Buyer who manages in collaboration of course.

It is the structuring of the company which does not include the SC structure because in Algeria it is more or less new. It's true that it's becoming more and more common, but it shouldn't be extended because the factories, the production, the industry and everything is less or more new in Algeria; it's only in the last decade that it has really exploded and developed.

6. In your opinion at what stage companies decide to see an SC consultant:

It is much more the companies that start up that need to set up a system of SC for the launching of the structure, the launching of the procedure, the sourcing eventually and all that on the other hand once again it would surprise me that it changes in Algeria what is called outsourcing: there are companies that out-source i.e. they already have the SC structure but they bring in consultant for an improvement, optimization: the outsourcing of a competence.

But in Algeria it's rare if they already have a SC department in place, they already have people in charge and they say to themselves why bring in a consultant when I have my employees that I pay, so that's a bit cultural.

7. Use of freelance websites:

As far as I know there are no freelance websites in Algeria but I have used freelance sites abroad but it was not for SC; there was a time when I could afford to do my work full time and I was doing freelance translations .

Therefore, I know freelance sites and I have seen it had people of all specialties and included the SCM and customer service but in Algeria, I do not know.

8. Freelance obstacles in Algeria:

1. Legal Status not yet clear
2. Culture: in my experience of course a company that's already set up a SC structure I don't see why or it will need an SC consultant unless it's a multinational company that already has that, they have a lot of outsourcing of skills .it depends: after that it remains a name because as I said before the vast SC you can be an SC consultant and you only work on the sourcing part, inventory management, customer service, purchasing, in fact that's the advantage of SC that it's vast, we're not limited.

9. How I proceed with my clients:

Each time I start with a company I have a contract to sign and by that I mean the start on the fees either it's a monthly fee or for example there are 3 missions and I set an amount for each mission and a deadline for payment.

If the mission is going to take a month or two, there are installments to be paid each period, then in the case where I preferred to pay monthly because at the beginning it was amounts per file, but there was the pandemic where many files were cancelled outright, or else to delay what caused and penalizes both the consultant and the company because there is work that is not being done, but there is still an effort that is being made and there is not a result that is achieved over time, so it can be both options.

10. Do you have to go to the company?

Of course, generally how I work, most of the time it is at home; at least once a week I go to the company for a summary, progress report, meeting; otherwise all week we are contacted by phone or email.

Interview 2 Mr Zaki SARI

Our second interviewer is Mr Zaki SARI , he is a Manufacturing Engineering Professor at University of Tlemcen, Algeria. Also the founder and former Director of the Manufacturing Engineering Laboratory of Tlemcen (MELT), and the founder and former head of the National Curriculum of Manufacturing Engineering. Sari is also our mentors who has coached us in our career as an engineer at the higher school of Applied Sciences.

Mr Zaki is also an industrial consultant who has collaborated with multiple companies in Algeria; he is an expert in Design, Modeling, Optimization, Simulation and Control of AS/RS...

We started our interview by giving our guest a small briefing about our project:

“We aim to design a web platform dedicated to industrial freelancers. Means, the website will make it easier for companies/individuals to reach out to supply chain experts (freelancer).

It will be the first Algerian website in this field. However, we could not get enough (basically non) sources, studies or information about: consulting, freelance and supply chain integration in Algeria

For that, we thought that the best way to get them is to interview people from the three domains mentioned”

“The questions will asked to you Mr. SARI, as consultant. However we will be pleased if you gave as side answers / Remarque’s or advice as a mentor”.

Proceeding with questions, in the following questions we discussed Mr. Zaki SARI’s experience as a consultant, he gave us he’s point of view about the field and shared with us fundamental information about a consultant career in Algeria.

IFEC: How do you see consulting as a job in Algeria and how would you describe it? Hard, underestimated, new...?

ZAKI: Underestimated yes. Hard no, but you have to deal with people with very different skills and personality. This part of the job is hard. New, I cannot say but surely not spread out

IFEC: So is it due the leak of consulting culture? For both companies and managers

ZAKI: Yes absolutely for most of managers consultants should be foreigners (Europeans)

IFEC: Is it because foreigners are more trusted?

ZAKI: Yes even-though they are often less skilled

IFEC: Definitely. Do you work in a team, firm or solo?

ZAKI: Generally in team

Seldom in solo

IFEC: And how do the clients reach you?

ZAKI: I have made a network through other consultants, also via my LinkedIn account

IFEC: Great. As an expert, who hires consultants the most, local companies, or multinational companies?

ZAKI: I worked equally with both, but multinational companies are more aware with consulting

IFEC: And you have to travel regularly to the company for updates?

ZAKI: It depends on the contract, one shot or long run

IFEC: Talking about contract, you work on projects or you take it task by task. In addition, which one is more difficult/easy to work on?

ZAKI: I have done both Long contract are much more difficult, especially when goals are not clearly stated at the beginning

IFEC: Do you receive your payment before/after you finish the job. In addition, do companies apply penalties on consultants if the results are not as expected?

ZAKI: Generally, payment is done after the job is finished, but if it is stated in the contract, you may ask for a portion (20-40%) at the beginning. Yes, penalties can be used but it should be clearly stated in the terms of the contract.

IFEC: Excellent, so the contract defines the entire job's do and don't, everything must be mentioned in the contract.

ZAKI: Yes, generally problems rise when the contract is not well written due to lack of experience.

IFEC: In your opinion, under which circumstances, the company need a consultant. When is critical to hire a consultant?

ZAKI: Consultant are generally hired to do jobs that company employees cannot do by themselves either for lack of skills or for lack of time. In addition, consultant will have an external "eye" and may see what employees do not.

IFEC: Can you give us sight about prices?

ZAKI: It begins from 15000da to 50000da with an average of 25000da

IFEC: In our project we want to target small companies or companies willing to lunch, however we are not sure about how many companies will join us... Any thoughts

ZAKI: Really, I do not know, but you should make a lot of advertising I will be happy to be one of your clients

IFEC: You will be the first Insha'Allah, for now, in our business plan, we rely on e-contract that contains date, due day and time, price. Is it enough or we should add another one as a paper. Because we cannot control what happens between the company and the expert when they meet

ZAKI: How are you planning to earn money?

IFEC: I take cuts of 13% from the global price of service

ZAKI: Ok you should clearly state this in the contract, also state your responsibility and limitations

IFEC: When an expert is chosen (according to skills and motivation), he and the employer negotiate the price and time and other details. Whenever they agree, they both must sign the e-contract. The employer must pay the full price (the money will be held and kept in our bank account until the job is done and approved by the employer)

If the expert does not deliver the job, he will receive nothing and the money goes back to the company. If the company complains about the quality of the job (does meet the expectations) we will apply penalties on the freelancer depending on the complaints.

ZAKI: I do not think that the company will accept to pay the whole amount of money before, you may ask for a portion Also if you get the entire amount this means that you should deliver invoices to the company and declare it, you will have to pay taxes on it, and it may be though. Maybe you should ask only for your commission

You have also to protect the consultant from the company. Because sometimes companies do not will to pay so, they may create problems

IFEC: Yeah exactly, that is why we want the company to pay the full amount

We cannot guarantee that he will receive the whole Amount out of the platform

ZAKI: I hope you all the best do not hesitate to contact me if you have any other questions

Interview 03: with Mr. Khaled Hamza

Mr Khaled Hamza is a supply chain manager specialized in Lean Warehousing, Logistics, Planning, Procurement, Sap MM and KPIs.

He has a good experience in multiple local and multinational companies, he had the chance to discover and work on different industries such as:

Wholesale (Food, Groceries).

Pharmaceutical (Production).

Foods product (FMCG).

Chemical production (ammonia, fertilizers ...).
Metal & Steel (Wire Machine, Pipe...).

Mr. khaled is very active on his LinkedIn account sharing regularly educational content about supply chain management and about the industrial sector in Algeria. However, Mr. khaled never worked as a consultant, our interview was more like a friendly chat about the reality and about the integration of supply chain in our local companies.

As usual we started our interview by a small briefing about IFEC, as a first impression, our interviewer was very excited about the project, he showed a positive reaction, he also was very supportive.

“Great initiative and project, I'm glad that students are coming up with such good quality ideas”

Mr Khaled, was so thrilled to actually talk to someone who is aware of the correct concept of supply chain, he took the lead in the discussion talking about how local companies are excessively far from having a good supply chain.

He agreed with us that only multinational companies have well structured supply chains, he precise that mostly food production companies take care of their supply chain management .

“Generally, multinational food companies make sure they adapt a good supply chain because they have to deal with mass production and daily distribution”

He also pointed that local companies are not familiar with supply chain management; he confirmed that each company has its own adaption of this it.

“Each company define supply chain based on their function or structure, we see it in some companies as logistics in others as planning or production and forecasting.”

Our guest said that the integration of supply chain in local companies is in it very beginnings and it will take a while to expand the culture of supply chain management, and we will need initiatives to help it to spread.

“We are still far away from adapting the supply chain management in local companies, currently we are seeing small improvements, but it will take more years to spread, but we need initiatives, courses to raise awareness about supply chain importance”

Mr. Khaled shared with us his experience with supply chain management in different industries; he also gave us feedback and advice to improve IFEC’s services such as payment methods and how to promote for IFEC.

“You have a great project, you should never give up on it, you will face difficulties but it’s very important to test and have feedback to improve”

Finally, we asked Mr. Khaled Hamza why he did not try consulting.

“The Algerian market is not open to consulting culture yet, in our daily life people rarely consult website for information or help not to mention local companies, it will be very difficult for a consultant to work in such environment”

He add:

“I will be a consultant one day, when the culture changes“

Interview 04: with Mr. ASSAM Ouali

A senior consultant in SCM. He has held several positions during his professional career such as head of maintenance department of service station network at NAFTAL, currently director of commercial transactions at a company of Construction of Agricultural Equipment: CME in Sidi Bel Abbas.

He even created his own company in 2012 in the field of maintenance and thus he could have an important experience allowing him to open the world of consulting. At the beginning by a method which consists in sending a platform to companies with all the subjects which can be treated in Supply Chain : from procurement, stock management, production, sales and even auditing and he was also a consultant at the level of the ISGP: (Institut Supérieure de Gestion et Planification) being the first Algerian state higher institute and at the level also of other national institutes and private schools his last forms the salaries of different companies in different fields such as production, Supply Chain Management and auditing in a professional way and at the same time offers consulting services in the fields already mentioned.

1. How do customers contact you?

Usually it was through the trainees that the companies send for training, and those who passed on the information to their companies saying there is such a consultant in such a field, and so the company itself contacts us and we solicit for audits or studies or even for consulting.

2. The work is solo or in a team:

I work alone but sometimes in team work as in the case where a company asks for a general report when for example: 3 consultants in 3 different fields, at a given moment the consultants meet to fair several interfaces for example the interface production does not work alone they are interactions with the accounting the stock management and in this sense; in meets to see the constraints the problems and possibly the solutions to given.

3. Does Supply Chain consulting generally work with companies that are starting up?

Supply Chain is a new concept in Algeria, for new companies when they ask one of the consultants to draw an organization chart or an organization for the company starting up, so what exactly happens: the consultants do not care about Supply Chain, do not take into account the principles of Supply

Chain, besides you will never find a Supply Chain manager in an organization chart of a company starting out because they do not know the importance of this speciality, and the former consultants who do organization, they do not have detailed notions on this concept, they know Supply Chain superficially so they do not take it into account.

Supply Chain consulting in general is when a company has a serious problem, for example in terms of procurement, they go to see someone from the procurement department and he gives them a general idea: he tells them that this department do not have to work alone, there is a problem with stock management, with technology, with accounting, so in order to be able to say that a logistic means is very efficient, the other means have to work in parallel.

If we ask ourselves the question, what should be retained from the Supply Chain is its 7 principles and the role of the Supply Chain manager, we should put a SC manger that will replace the type of audit and the type of management control on one side, on the other side of the CEO, there must be a SC manager; there are too many details but what we must remember among the 7 principles: the global performance is not local: it means that if we want to judge that the company is performing or not, we must measure 3 things:

- The stock: the more the stock is important in a company, and it is judged non-performing.
- -Sales: The more sales are very important, you have to see the pace of sales, i.e. sales are important and the pace of sales is important, it is judged to be performing, but if sales are important and the pace of sales is very low, it is judged to be non-performing.
- The machine that transforms unsold stock into sold stock, this machine that transforms unsold stock into sold stock is the intelligence of the company, this intelligence is where the SCM intervenes, i.e., in the case of a company that has a large number of unsold stock, it is the intelligence of the company.

the SC through the company in 4 flows: physical, financial, information and the human flow, these flows when it crosses the company must be synchronized: the physical flow must follow the financial flow at the same time and the information flow for example: when we physically receive a good we must receive its documents, we must receive the delivery note, we must receive the invoice at the same time and we must pay, and there comes the human flow: it must be optimized i.e. - i.e. we have to optimize the reception, we have to optimize the 4 flows at the same time in a synchronization, that's the SC. In addition, that applies everywhere, not only at the goods receipt level, at the delivery level, at the production level, at the order level, so everywhere.

Overall, it will be nothing to have a good production if there are no sales, and it will be nothing to have a good commercial who can sell but the production that makes him late.

Moreover, it will be nothing to have a good production and good purchasing services and that the stock is badly managed: there are stock shortages, overstocking, etc...

In addition, it will not be anything to have people of quality if we do not give them the resources, the SC all work together and we must monitor all four flows at the same time in a synchronized way, this is the principle of the SC that the people of the organization do not know very well.

4. The culture of consulting in Algeria:

The current problem of management in Algeria and in two principles that must be kept in mind:

Currently the first observation in Algeria is that old people, which are called old cheats, hold consulting: old people of the old administration who are statutory auditors, they do financial audit and only financial audit, if you talk about logistics audit, it does not exist. However, at the level of the SC there is what is called: the logistics audit, it has five referential the most known is the ASLOG⁵².

So, consulting in Algeria is only concerned with finance and accounting because old people define it who have not been trained in logistics and who do not have any reference systems because what is consulting in Algeria? For them there is only financial and accounting audit, which has a reference system, called the National Accounting Plan, while the other logistics reference system is unknown to the old consultants.

So today, when you heard about a consultant at the level of a company, if you looked for it, you found that it is a former sales manager who does auditing, that is all; consequently, this is the first failure of consulting in Algeria,

It is because the logistics audit does not exist. In all professional Supply Chain Master's programs, all the schools include the module "logistics audit" in their programs. Each time I introducing it because I was trained in a French engineering school, so there are American and French standards and we can do this in any company: we audit stock management, production, sales, distribution and transport, all the CS resources.

For the second failure if you look in the organization charts of the companies you will find the direction of the human, technical, financial resources....

It is rare to find a logistics department or SCM, in it : is a problem of culture, there is what sees the CS as being transport and ignoring the other parts, so they understand the notion with only one meaning either stock or transport or purchase,

In addition, for the definitions CS is not logistics, its different: logistics is part of CS, logistics is everything that concerns the physical flow only: Both the stock or the transport and all that is material and that is it.

And when it comes to SC, there are the 4 flows, even human resources, i.e. And that means that the SC manager has the right to intervene in all areas of these 4 flows, and that's why he is placed just below the CEO: to give him the power to unblock all the flows in all areas, for example if a customer doesn't pay, or in the case where the customer has debts with the company the SC manager can refuse the delivery of the customer even though the salesman has given the order to deliver, the SC manager will say no because he follows the financial flow. In whatever way he is given the power to unblock where there is a flow late in relation to the other because they must be synchronized at the same time: same speed same position, it is a flow is late in relation to the other his mission is to unblock it on the spot.

In summary in the SCM can go from customer of customer is of supplier of supplier: horizontally it is very long

⁵² : L'ASLOG: the French Supply Chain and Logistics Association aims to encourage companies to involve logistics in their strategies. Today, L'ASLOG is the largest French network of Supply Chain professionals

5. What types of companies were you a consultant with?

Usually they are big companies such as SONATRACH, COSIDER and there are also small companies so the type is varied depending on the customer's concern or he has a problem because sometimes the customer does not know where the problem is: for example he tells you I have a packaging that is damaged or I have customer returns but he does not know why, sometimes there are out of stock, so you have to see with the experts to find out exactly where the problem is.

6. Have you worked as a freelancer in this field?

Yes, many times, and the last time I was after recruiting at SBA. You do not find this freelance culture in Algeria. For your project: a platform where companies post their problems and look for consultants is really a good initiative, I hope to make it happen and I will help you in case of difficulties later on.

7. After explaining how the Platform works and the payment method proposed Mr. Assam OUAL told us that:

The method of payment is very efficient and it is with this approach that Algerian banks work with Chinese banks that buy from Chinese suppliers: Algerian customers and Chinese suppliers do not know each other and it is only the two banks that know both sides i.e. Algerian companies pay the bank to have raw material without contacting directly with the suppliers and its two banks block the money until the customer validates his order.

If the Platform takes only its margin at the beginning and does not follow the whole process, it will not last, because as soon as the consultant gets in contact with the company, they will agree to dismiss the company and this happens often; the example of real estate agencies the client contacts them and they take them to visit houses to see and then they agreed.

After that, the client cancels with the agency, goes to look for the owner of the house alone, and bought/rented the house directly just to not pay the agency's margin.

8. Consulting fees in Algeria:

It is not easily measurable if the company hires a consultant for a week he will choose to be paid per hour, they will give him an office at the company level to work, he has the right to access all sites and call any person and at the end of the week he prepares his deliverable report, at the beginning they agreed on the price after the consultant during his work he will find difficulties, he has planned a week finally he will take more than a month and to know if he finishes because he doesn't know the conditions of the company before giving the price he wants, but if he starts to work he wants to be paid per hour or per day the company will doubt if he will take a lot of time not forgetting that he is taken care of by the organization and he has spent 2 months or more, the company will really doubt so they will say it's not normal.

Therefore, in the area there is no time, there is no law and there is not a single procedure

9. What do companies do for that? :

The consultants will tender according to a specification and the companies choose the consultant with the lowest price that with less experience. But this method in general fails because the customer that one makes his schedule of conditions it does not know where exactly is the problem since he is looks for the solution therefore he does not know how to express the problem, if he knew it will find alone the solution, therefore the real problem is always hidden.

The companies by choosing the consultant with the lowest price that with less experience, and when this last one begins to work, he finds difficulties: a bad organization of the things, no information, people leave their posts; he enters in very hard problems that he do not have solutions...

But the consultant in general works by the day, it can go from 18 thousand dinars to 30 thousand dinars even for seminars, me are its prices that I ask for the school that I work with when they propose me a courses or seminars in companies, and the school of course add its margin and will bid with client.

If not, there are companies that invite the consultants to spend a few days in there company to find out where the problem is to make a diagnosis and a report on the current state and then they agree on the prices saying if you want me to propose a solution here is the price if you do not want here is the price of diagnosis already done.

So there are too many details to see because this is an unregulated area, for example when you call a statutory audit the prices are clear because there is a law that talks about the field and its procedure, therefore there are several statutory auditors who propose the same price.

But in this sense the consulting at has several lines: technical, organization, human resources ... it is a mixture of everything and requires a wide experience, for example a consultant with 20 years' experience will solve all the problems, give you an organization, procedures, how to do, how to work, the method of control, etc.. I.e. the whole thing to solve the problem because he has experience, he is an experienced person, everything he learnt in 20 years will pass to you in 3 months.

Interview 05: with Mr. N.Boughachiche

IFEC: thank you so much for your time sir, i would like give you a small briefing about our?project We aim to design a web platform dedicated to industrial freelancers. Means, the website will make it easier for companies/individuals to reach out to supply chain experts (freelancer). It will be the first Algerian website in this field. However, we could not get enough (basically non) sources, studies or information about: consulting, freelance and supply chain integration in Algeria For that, we thought that the best way to get them is to interview people from the three domains mentioned to get data so we can improve our business plan

N.Boughachiche: Ok i see. I have one remarks concerning the language, as i understood your work is in Algeria and for Algerian market. My first advice to you is to proceed with language, which can be understood by people in this country. Frenche/ Arabic are preferred in communication thank English. For question, you can send me by points or through a chat and I will answer you every time i can do. However, I will do my best to support you.

IFEC: Notre mémoire est écrite en anglais, c'est pour ça on utilise l'anglais. Et avant d'envoyer un message on vérifie d'abord le profil et les langues maîtrisées par le manager. Merci beaucoup monsieur pour la remarque et C'est à vous de choisir la langue de communication monsieur. Ma première question est est-ce que vous avez déjà travaillé comme un consultant?

N.Boughachiche: Je le suis.

IFEC: Vous travaillez en équipe ou bien solo? Ou bien dans une company de consulting?

• **N.Boughachiche** : Des projets en solo , d'autres en équipes. Pas dans une compagnie mais pour le compte de compagnies (Freelance)

IFEC: Comment vous décrivez la culture de consulting en Algérie? Est-ce que les entreprises locales recrutent souvent un consultant?

N.Boughachiche: Non , c'est un domaine qui n'est pas encadré. Les entreprises ont une faible culture de recourir au consulting externe. Cela dépend aussi des entreprises publique/privée/locale/multi...etc.

Les entreprises locales ont une très faible culture pour ce domaine. Ils ne recrutent pas.

IFEC: D'après nos stages pratiques, les entreprises locales n'ont pas la notion de la supply chain ni de consulting. Par contre les entreprises multinationales sont très développées dans ces domaines.

• Selon votre expérience, à quelle étape l'entreprise décide de voir un consultant?

N.Boughachiche: généralement c'est lorsque l'entreprise est face à une crise majeure dont les ressources internes sont incapables de gérer.

IFEC: Que pensez-vous de la culture de supply chain et de consulting en Algérie?

• **N.Boughachiche**: La culture de la SC est très faible. Le Consulting occupe une place chez certaines entreprises mais il reste inconnue ou très peu valorisé chez beaucoup.

IFEC: Pouvez-vous nous donner une idée sur: *comment les clients vous contactent. *tarifs de Service consulting *les problèmes que les consultants rencontrent avec les entreprises après recrutement.

N.Boughachiche: Les contacts se font sur les réseaux professionnels. Les tarifs sont négociables. Le consultant freelance n'est pas un salarié (c'est un prestataire).

IFEC: Merci beaucoup monsieur pour vos réponses et votre temps. Si vous avez un feedback ou Bien des conseils nous serons honorés par votre contribution.

N.Boughachiche: C'est un plaisir de soutenir des jeunes qui seront le futur d'une Algérie forte. Je vous souhaite bon courage dans votre projet. N.Boughachiche Consultant.

10.2 Contracts

French version:

Entre les soussignés :

Ci-après dénommé « le Prestataire » : _____ (identité du prestataire)

ET

Ci-après dénommé « le Client » : _____ (identité du client)

Il a été convenu ce qui suit :

Article 1 : Objet du contrat et missions du prestataire

(description de la mission confiée)

Article 2 : Modalités de réalisation de la mission

2.1 Le Prestataire s'engage envers le Client à réaliser la mission telle que définie dans l'article 1 avec le plus grand professionnalisme, à respecter les dispositions légales et réglementaires applicables et à se conformer aux normes et procédures applicables.

Le Prestataire s'engage à mobiliser les moyens nécessaires à la bonne exécution de la mission.

2.2 Le Client s'engage à coopérer pleinement avec le Prestataire en vue de faciliter au mieux la bonne exécution de la mission confiée au Prestataire.

Article 3 : Durée du contrat

Le présent contrat prend effet le __/__/__ (date de début). Il est conclu pour une durée ferme de ____ à compter de sa date de prise d'effet.

Il ne sera pas renouvelable par tacite reconduction, sauf décision expresse et commune du Prestataire et du Client de le reconduire.

Article 4 : Pénalités de retard

Toute méconnaissance des délais stipulés à l'article 3 du présent contrat sera sanctionnée par une pénalité de retard s'élevant à ____ DA par jour de retard.

Article 5 : Résiliation anticipée du contrat

En cas de manquement de l'une des parties aux obligations mentionnées à l'article 2 du présent contrat, l'autre partie se réserve le droit de notifier ce manquement aux obligations contractuelles ainsi que sa volonté de résilier le contrat de la sous-traitance ou de la prestation de service de manière anticipée.

Cette notification à l'autre partie devra se référer à la présente clause, préciser le manquement considéré et être adressée par lettre recommandée avec accusé de réception.

Sauf à ce que le manquement soit réparé ou que les parties trouvent un accord, la résiliation du contrat prendra effet après l'expiration d'un délai de préavis de ____ à compter de la réception de la notification visée ci-avant.

Article 6 : Rémunération du prestataire et paiement de la rémunération

Le montant de la rémunération du Prestataire est de : ____ (montant).

Le paiement par le Client de la prestation au titre de la réalisation de la mission s'effectuera par le(s) moyen(s) de paiement suivant(s) : ____ (moyens de paiement).

Le Prestataire aura par ailleurs droit, en même temps que sa rémunération, au remboursement des frais exposés dans le cadre de l'exercice de la mission préalablement validés par le Client et sur présentation de justificatifs.

Article 7 : Obligation de confidentialité

Le Prestataire s'interdit de divulguer toute information considérée comme stratégique par le Client dont il pourra avoir connaissance lors de l'exécution de la mission.

Article 8 : Sous-traitance (facultative)

Les tâches précisées à l'article 1 du présent contrat pourront être réalisées par un sous-traitant, dénommé _____ (nom de la société sous-traitante), ce que reconnaît et accepte le client.

Le cas échéant, le Prestataire s'interdit de sous-traiter les tâches décrites à l'article 1 du présent contrat à quiconque.

Article 9 : Reporting

Le Prestataire s'engage à informer le Client du déroulé de la mission régulièrement par reporting effectué selon les modalités suivantes : _____.

Article 10 : Responsabilité

Chacune des parties sera responsable de la bonne exécution des obligations qui lui incombent.

Le Prestataire ne sera responsable que des dommages directs causés au client résultant de ses fautes ou de sa négligence (à l'exclusion de tout cas de force majeure ou de l'usage par le Client du service non conforme aux préconisations du Prestataire). Par ailleurs, le Prestataire s'engage à souscrire une assurance professionnelle afin de couvrir tous les dommages corporels et matériels pouvant nuire à autrui, et notamment au Client.

Chacune des parties s'engage en conséquence à prévenir l'autre sans délai de tout retard ou de tout manquement dans l'exécution du contrat ou des missions prévues dans le contrat.

Article 11 : Droit applicable – Règlement des différends

Le contrat est soumis au droit algériens.

Les différends qui surviendraient, entre les parties, relatifs à la conclusion, à l'exécution ou à l'interprétation du présent contrat seront soumis aux tribunaux compétents.

Fait à _____ (lieu de signature) en deux exemplaires originaux,

Le __/__/__ (date de signature)

(nom et signature du Client)

(nom et signature du Prestataire)

English version :

Prepared for:

[Client.

Company]

Created by:

[Sender.FirstName] [Sender.LastName]

[Sender.Company]

This Freelance Contract (this “Contract” or this “Freelance Contract”), is entered into and made effective as of [Date] (the “Effective Date”), by and between [Client.Company] , with an office located at [Client.Address] (“Customer”), and [Sender.Company] , with an office located at [Sender.Address] (“Freelancer”).

WHEREAS:

1. Customer has a need for [Description of freelance services]; and
2. Freelancer has an interest in performing such services for Customer; and
3. The parties wish to set forth the terms and conditions upon which such services will be provided to Customer;

NOW THEREFORE, in consideration of the foregoing, and the mutual promises herein contained, the parties hereby agree as follows:

13. Description of Services

Type your text here...

14. Deliverables

Type your text here...

15. Project Schedule

Type your text here...

16. Pricing and Rates

Type your text here...

17. Payment Terms and Schedule

Type your text here...

18. Terms and Conditions

This Freelance Contract is governed by the terms and conditions provided here and in **Attachment A**, attached hereto.

IN WITNESS WHEREOF, by their respective signatures below, the parties have caused the Contract, inclusive of Attachment A, to be duly executed and effective as of the Effective Date.

[Sender.Company]

Signature

MM/DD/YYYY

[Sender.FirstName] [Sender.LastName]

[Client.Company]

Signature

MM/DD/YYYY

[Client.FirstName] [Client.LastName]

19. Attachment A

4 Freelance Contract Terms and Conditions

f) 1. Intellectual Property Rights

1. **Retained Rights.** Each party will retain all right, title, and interest in and to its own Pre-Existing Intellectual Property irrespective of any disclosure of such Pre-Existing Intellectual Property to the other party, subject to any licenses granted herein.
2. **Pre-Existing Intellectual Property.** Freelancer will not use any Freelancer or third party Pre-Existing Intellectual Property in connection with this Contract unless Freelancer has the right to

use it for Customer's benefit. If Freelancer is not the owner of such Pre-Existing Intellectual Property, Freelancer will obtain from the owner any rights as are necessary to enable Freelancer to comply with this Contract.

Freelancer grants Customer a non-exclusive, royalty-free, worldwide, perpetual and irrevocable license in Freelancer and third party Pre-Existing Intellectual Property, to the extent such Pre-Existing Intellectual Property is incorporated into any Deliverable, with the license including the right to make, have made, sell, use, reproduce, modify, adapt, display, distribute, make other versions of and disclose the property and to sublicense others to do these things.

Freelancer will not incorporate any materials from a third party, including Open Source or freeware, into any Deliverable unless (i) Freelancer clearly identifies the specific elements of the Deliverable to contain third party materials, (ii) Freelancer identifies the corresponding third party licenses and any restrictions on use thereof, and (iii) approval is given by Customer in writing. Freelancer represents, warrants and covenants that Freelancer has complied and shall continue to comply with all third party licenses (including all open source licenses) associated with any software components that will be included in the Deliverables or any other materials supplied by Freelancer. Freelancer shall indemnify Customer against any losses and liability incurred by Customer due to failure of Freelancer to meet any of the requirements in any of the third party licenses.

3. **Ownership of Deliverables.** Subject to Freelancer and third party rights in Pre-Existing Intellectual Property, all Deliverables, whether complete or in progress, and all Intellectual Property Rights related thereto shall belong to Customer, and Freelancer hereby assigns such rights to Customer. Freelancer agrees that Customer will own all patents, inventor's certificates, utility models or other rights, copyrights or trade secrets covering the Deliverables and will have full rights to use the Deliverables without claim on the part of Freelancer for additional compensation and without challenge, opposition or interference by Freelancer and Freelancer will, and will cause each of its Personnel to, waive their respective moral rights therein. Freelancer will sign any necessary documents and will otherwise assist Customer in securing, maintaining and defending copyrights or other rights to protect the Deliverables in any country.

4. **No Rights to Customer Intellectual Property.** Except for the limited license to use materials provided by Customer as may be necessary in order for Freelancer to perform Services under this Contract, Freelancer is granted no right, title, or interest in any Customer Intellectual Property.

5 2. Confidentiality

1. **Confidential Information.** For purposes of this Contract, "Confidential Information" shall mean information or material proprietary to a Party or designated as confidential by such Party (the "Disclosing Party"), as well as information about which a Party (the "Receiving Party") obtains knowledge or access, through or as a result of this Contract (including information conceived, originated, discovered or developed in whole or in part by Freelancer hereunder). Confidential Information does not include: a) information that is or becomes publicly known without restriction and without breach of this Contract or that is generally employed by the trade at or after the time the Receiving Party first learns of such information; b) generic information or knowledge which the Receiving Party would have learned in the course of similar employment or work elsewhere in the trade; c) information the Receiving Party lawfully receives from a third party without restriction on disclosure and without breach of a nondisclosure obligation; d) information the Receiving Party

rightfully knew prior to receiving such information from the Disclosing Party to the extent such knowledge was not subject to restrictions on further disclosure; or (e) information the Receiving Party develops independent of any information originating from the Disclosing Party.

2. **Customer Confidential Information.** The following constitute Confidential Information of Customer and should not be disclosed to third parties: the Deliverables, discoveries, ideas, concepts, software in various states of development, designs, drawings, specifications, techniques, models, data, source code, source files and documentation, object code, documentation, diagrams, flow charts, research, development, processes, procedures, “know-how”, marketing techniques and materials, marketing and development plans, customer names and other information related to customers, price lists, pricing policies and financial information, this Contract and the existence of this Contract, and any work assignments authorized or issued under this Contract. Freelancer will not use Customer’s name, likeness, or logo (Customer’s “Identity”), without Customer’s prior written consent, to include use or reference to Customer’s Identity, directly or indirectly, in conjunction with any other clients or potential clients, any client lists, advertisements, news releases or releases to any professional or trade publications.

3. **Non-Disclosure.** The Parties hereby agree that during the term hereof and at all times thereafter, and except as specifically permitted herein or in a separate writing signed by the Disclosing Party, the Receiving Party shall not use, commercialize or disclose Confidential Information to any person or entity. Upon termination, or at any time upon the request of the Disclosing Party, the Receiving Party shall return to the Disclosing Party all Confidential Information, including all notes, data, reference materials, sketches, drawings, memorandums, documentations and records which in any way incorporate Confidential Information.

4. **Right to Disclose.** With respect to any information, knowledge, or data disclosed to Customer by the Freelancer, the Freelancer warrants that the Freelancer has full and unrestricted right to disclose the same without incurring legal liability to others, and that Customer shall have full and unrestricted right to use and publish the same as it may see fit. Any restrictions on Customer’s use of any information, knowledge, or data disclosed by Freelancer must be made known to Customer as soon as practicable and in any event agreed upon before the start of any work.

6 3. Conflict of Interest

1. Freelancer represents that its execution and performance of this Contract does not conflict with or breach any contractual, fiduciary or other duty or obligation to which Freelancer is bound. Freelancer shall not accept any work from Customer or work from any other business organizations or entities which would create an actual or potential conflict of interest for the Freelancer or which is detrimental to Customer’s business interests.

7 4. Termination

Rights to Terminate

1. Customer may terminate this Contract and/or an individual project for its convenience, without liability at any time, upon prior written notice to Freelancer.

2. Freelancer may terminate this Contract upon thirty days prior written notice provided there are no open projects at the time notice is given.

3. Customer may terminate this Contract and/or any open projects immediately for cause if the Freelancer fails to perform any of its obligations under this Contract or if Freelancer breaches any of the warranties provided herein and fails to correct such failure or breach to Customer’s reasonable satisfaction within ten (10) calendar days (unless extended by Customer) following

notice by Customer. Customer shall be entitled to seek and obtain all remedies available to it in law or in equity.

4. Upon termination of any project or work given Freelancer hereunder, Freelancer will immediately provide Customer with any and all work in progress or completed prior to the termination date. As Customer's sole obligation to Freelancer resulting from such termination, Customer will pay Freelancer an equitable amount as determined by Customer for the partially completed work in progress and the agreed to price for the completed Services and/or Deliverables provided and accepted prior to the date of termination.

5. Upon termination or expiration of this Contract or a project performed by Freelancer hereunder, whichever occurs first, Freelancer shall promptly return to Customer all materials and or tools provided by Customer under this Contract and all Confidential Information provided by Customer to Freelancer.

6. Any provision or clause in this Contract that, by its language or context, implies its survival shall survive any termination or expiration of this Contract.

8 5. Warranties

Freelancer warrants that:

1. the Services and Deliverables are original and do not infringe upon any third party's patents, trademarks, trade secrets, copyrights or other proprietary rights,

2. it will perform the Services hereunder in a professional and workmanlike manner,

3. the Deliverables Freelancer provides to Customer are new, of acceptable quality free from defects in material and workmanship and will meet the requirements and conform with any specifications agreed between the parties,

4. it has all necessary permits and is authorized to do business in all jurisdictions where Services are to be performed,

5. it will comply with all applicable federal and other jurisdictional laws in performing the Services,

6. it has all rights to enter into this Contract and there are no impediments to Freelancer's execution of this Contract or Freelancer's performance of Services hereunder.

9 6. Limitation of Liability

1. EXCEPT AS SET FORTH IN THIS SECTION BELOW, IN NO EVENT WILL EITHER PARTY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES NOR FOR LOSS OF DATA, PROFITS OR REVENUE, COST OF CAPITAL OR DOWNTIME COSTS, NOR FOR ANY EXEMPLARY OR PUNITIVE DAMAGES, ARISING FROM ANY CLAIM OR ACTION, INCIDENTAL OR COLLATERAL TO, OR DIRECTLY OR INDIRECTLY RELATED TO OR IN ANY WAY CONNECTED WITH, THE SUBJECT MATTER OF THE AGREEMENT, WHETHER SUCH DAMAGES ARE BASED ON CONTRACT, TORT, STATUTE, IMPLIED DUTIES OR OBLIGATIONS, OR OTHER LEGAL THEORY, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES

2. NOTWITHSTANDING THE FOREGOING, ANY PURPORTED LIMITATION OR WAIVER OF LIABILITY SHALL NOT APPLY TO CONTRACTOR'S OBLIGATION UNDER THE INDEMNIFICATION OR CONFIDENTIAL INFORMATION SECTIONS OF THIS AGREEMENT OR EITHER PARTY'S LIABILITY TO THE OTHER FOR PERSONAL INJURY, DEATH OR PHYSICAL DAMAGE TO PROPERTY CLAIMS.

10 7. Inspection and Acceptance

1. **Non-Conforming Services and Deliverables.** If any of the Services performed or Deliverables delivered do not conform to specified requirements, Customer may require the Freelancer to perform the Services again or replace or repair the non-conforming Deliverables in order to bring them into full conformity with the requirements, at Freelancer's sole cost and expense. When the defects in Services and/or Deliverables cannot be corrected by re-performance, Customer may: (a) require Freelancer to take necessary action, at Freelancer's own cost and expense, to ensure that future performance conforms to the requirements and/or (b) reduce any price payable under the applicable project to reflect the reduced value of the Services performed and/or Deliverables delivered by Freelancer and accepted by Customer.
2. If Freelancer fails to promptly conform the Services and/or Deliverables to defined requirements or specifications, or take action deemed by Customer to be sufficient to ensure future performance of the project in full conformity with such requirements, Customer may (a) by contract or otherwise, perform the services or subcontract to another Freelancer to perform the Services and reduce any price payable by an amount that is equitable under the circumstances and charge the difference in re-procurement costs back to Freelancer and/or (b) terminate the project and/or this Contract for default.

11 8. Insurance

1. Freelancer shall maintain adequate insurance coverage and minimum coverage limits for its business as required by any applicable law or regulation, including Workers' Compensation insurance as required by any applicable law or regulation, or otherwise as determined by Freelancer in its reasonable discretion. Freelancer's lack of insurance coverage shall limit any liability Freelancer may have under this Contract.

12 9. Miscellaneous

1. **Assignment.** Freelancer shall not assign any rights of this Contract or any other written instrument related to Services and/or Deliverables provided under this Contract, and no assignment shall be binding without the prior written consent of Customer. Subject to the foregoing, this Contract will be binding upon the Parties' heirs, executors, successors and assigns.
2. **Governing Law.** The Parties shall make a good-faith effort to amicably settle by mutual agreement any dispute that may arise between them under this Contract. The foregoing requirement will not preclude either Party from seeking injunctive relief as it deems necessary to protect its own interests. This Contract will be construed and enforced in accordance with the laws of the State of [State] , excluding its choice of law rules.
3. **Severability.** The Parties recognize the uncertainty of the law with respect to certain provisions of this Contract and expressly stipulate that this Contract will be construed in a manner that renders its provisions valid and enforceable to the maximum extent possible under applicable law. To the extent that any provisions of this Contract are determined by a court of competent jurisdiction to be invalid or unenforceable, such provisions will be deleted from this Contract or modified so as to make them enforceable and the validity and enforceability of the remainder of such provisions and of this Contract will be unaffected.
4. **Independent Contractor.** Nothing contained in this Contract shall create an employer and employee relationship, a master and servant relationship, or a principal and agent relationship between Freelancer and Customer. Customer and Freelancer agree that Freelancer is, and at all times during this Contract shall remain, an independent contractor.

5. **Force Majeure.** Neither Party shall be liable for any failure to perform under this Contract when such failure is due to causes beyond that Party's reasonable control, including, but not limited to, acts of state or governmental authorities, acts of terrorism, natural catastrophe, fire, storm, flood, earthquakes, accident, and prolonged shortage of energy. In the event of such delay the date of delivery or time for completion will be extended by a period of time reasonably necessary by both Freelancer and Customer. If the delay remains in effect for a period in excess of thirty days, Customer may terminate this Contract immediately upon written notice to Freelancer.

6. **Entire Contract.** This document and all attached or incorporated documents contains the entire agreement between the Parties and supersedes any previous understanding, commitments or agreements, oral or written. Further, this Contract may not be modified, changed, or otherwise altered in any respect except by a written agreement signed by both Parties.

