Decision Making in Manufacturing and Services
Vol. 19 • 2025 • pp. 5–20

E-sourcing Platform for Improving Communication and Optimizing Supply Chains of Textile Companies

Zouina Ameur*, Samir Abdelhamid*

Abstract. The news predicted that all areas would have experienced significant disruptions from the start of the COVID-19 health crisis. At the economic scale of manufacturing companies, supply chains have been much more disrupted, which has often been justified by delays in delivery schedules. The results were considered to be harmful and had a negative influence on productive systems. By choosing the textile sector, our study began with an analysis of the information and communication systems of a limited number of companies; from the results of this analysis, we concluded that the fragility of these systems was the reason for the inabilities of certain supply chains to maintain their stability during the crisis. So, the solution to remedy this type of problem was to propose an e-sourcing platform that connects all of the companies that are active in this sector and those who are in direct contact with them to create a web network where the procurement procedures are similar – starting with the search for suppliers, and going as far as signing contracts online with a view of this research.

Keywords: e-sourcing, supply chain, internet, website, textile, optimization

Mathematics Subject Classification: 91C99

JEL Classification: L81

Submitted: February 28, 2023

Revised: November 16, 2024

1. INTRODUCTION

On March 11, 2020, the World Health Organization declared that the coronavirus (COVID-19) had reached pandemic status; as the pandemic caused illness and death for millions of people around the world. This greatest crisis was also generating profound social and economic disruption.

* University of Batna 2, Industrial Engineering Department, Laboratory of Automatic and Production "LAP", Batna , Algeria, e-mails: z.ameur@univ-batna2.dz, samir.abdelhamid@univ-batna2.dz.

Since the said crisis, the means of communication and scientific journals have been enriched with numerous studies that have dealt with its negative effects on various areas; for example, Knight et al. (2020), where the authors wrote, "during the pandemic, all businesses' supply chains are facing un-precedent challenges... Public sector procurement functions have a crucial role in crisis management, including urgently acquiring critical materials for health services such as personal protective equipment and ventilators." In the same context, the authors of Ben Jeddou et al. (2015) said, "the performance of the supply chain requires perfect control of the three links in this chain; namely, upstream logistics, internal logistics, and downstream logistics. The first link in this 'Supply Chain' is of paramount importance for each company."

In some business sectors, procurement is a major function in structuring a business; this must be managed proactively. Thus, the planning and organization of supply chains must be ensured in such a way as to avoid problems such as stock shortages, disruptions of delivery times that are caused by certain changes, or crises such as the COVID-19 pandemic (which disrupted and sometimes completely paralyzed the sequences of the links between the actors of the world's supply chains; in particular, those that presented a certain fragility at the levels of their chains). Much research has been carried out in this direction in order to find safe solutions in order to have supply chains minimize risk trade as much as possible. Take the example of Nikookar et al. (2021), where the authors addressed the topic of the fragility of supply chain management.

Like all of these researchers (and others), we started this research axis that concerns the fragility of the information systems of supply chains. Through this study, we have tried to offer a digital decision-making tool for those companies that are active in the textile sector as a too-large giant sector. Among the old sectors, this sector always presents news according to the trends, but it has also been often presented on the lists of sectors that are concerned by the negativity of global crises for a long time.

The idea of our work is to provide a decision-support tool to simplify e-sourcing and optimize the supply chains in the textile sector by creating a platform that serves as a point of contacting companies that are active in this sector, their customers, and their suppliers at the same time on the same network.

2. LITERATURE REVIEW

During our research in this field, we found many professionals and researchers who have studied supply chains, their developments, and their relationship with the development of the economies of the countries.

Let us begin with this declaration: "the knowledge economy is the source of a new renaissance. The parallel is made through the acceleration of the pace of scientific discoveries in all fields and this through the use of the internet and information and communication technologies (ICT)" – this was taken from the introduction of a scientific article about the important role that ICTs play in developing the business economy (Mebarki & Berass, 2017). In the literature review, we tried to focus a little on the positioning of the internet and ICTs in the supply chains of large companies and its essential roles in their development.

Given the diversity of the actors that compose these chains, the titles of those researches have varied between those who chose to study the role of social capital in order to have a better solution among suppliers by analyzing the buyer-supplier relationship (e.g. Jääskeläien et al., 2020), while others have studied the roles of buyers and their behaviors in circular economies (e.g. Neessen et al., 2021).

Given that a procurement operation is composed of several stages with each representing a large area of research, we will try to converge our research toward the first stage (which is known as the selection of suppliers).

2.1. Supplier selection strategies as key point in procurement process

Before selecting suppliers that will be viewed or chosen for purchases, they must meet certain criteria. We found that much research has focused on this topic, e.g. Aguezzoul and Ladet (2006) where the authors discussed the selection criteria but in a broader sense by conducting a broad search of literature reviews on the issues of supplier selection and evaluation. They also completed their work by studying the impact of supply strategies (mono-sourcing, multi-sourcing) on inventory management.

Since the selection of suppliers is the first step in the procurement process, it is then important to start this on a valid basis, as any incorrect step can have negative repercussions on what comes after and can contribute to the losses of a company rather than its pursuit of profitability objectives. Cochran et al. (2011), dealt with each stage of the supplier-selection process one-by-one, specifying the quality and importance of each of them individually. In Ben Jeddou et al. (2015), which was carried out on the choice and selection of suppliers, the authors affirmed that the selection of suppliers even influences the performance of a company. Much research has been undertaken by researchers and professionals in order to optimize this very essential step in the supply process. Taking the example of Ben Jeddou et al. (2015), the authors chose to apply the AHP method (analytic hierarchy process) to the multi-criteria choice of suppliers.

In the same context (and through our literature review), we read articles on the management of supply chains, the selection of suppliers, and the methods that are used for evaluating and selecting suppliers, these studies have enriched this subject by providing companies with a summary of the supplier-selection process and all types of methods for helping them achieve their objectives in terms of optimizing and developing their supply chains. Taherdoost and Brard (2019) concluded these works by saying, "the application of a structured decision-making technique is vital."

2.2. Textile sector and use of internet for supplying

Since our study concerned the textile sector, we subsequently directed this part of the literature review toward the axis of the textile industry and everything that is related to it in order to get closer to our goal of this work and begin its practical part after giving a flash of essential information to know about this type of industry and positioning it in the technological revolution that the world is experiencing – especially in the commercial part.

With the technological development that the world is experiencing today, the majority of the procurement managers use the internet to find new suppliers who can meet the needs of their businesses. However, arbitrary research may not meet their desires and expectations, so they may subsequently waste their time in searches without positive results. Currently, we are finding buyers who choose to launch searches a little more advantageously by entering sites that offer e-commerce services (or platforms of e-sourcing, if we want to call them this).

Many web pages, platforms, and applications have been created to meet the needs of buyers by offering them information on products, their producers, and their sellers.

In Table 1, we chose some sites that have been commonly used by professionals to find information about a product, its origin, and the points of sale where it may exist (and even give price estimates for some cases).

Table 1. *E-commerce web sites*

Web sites	Year of creation	Activity	Other
Yellow Pages – www.pagesjaunes.fr (France) – www.pagesjaunes.com.tn (Tunisia) – www.pj.ma (Morocco) – www.pjalgerie.com (Algeria)	1986	The Yellow Pages are a telephone directory in many countries that containing contact details of professionals, which are grouped and sorted according to their activities	In several countries (such as France and Canada), "Yellow Pages" is a registered trademark
Amazon – www.amazon.fr	1994	Amazon is the most popular online sales site in the world (amazon.fr)	The site has millions of products in a wide variety of categories, such as high-tech, sports, fashion, automotive, beauty, kitchen, DIY, and many more
Made-in-China – www.made-in-china.com	1998	Complete service platform for foreign trade (made-in-China)	This is committed to exploiting business opportunities for Chinese suppliers and overseas buyers
Alibaba – www.alibaba.com	1999	Leading platform for global wholesale trade	They serve millions of buyers around the world: – features millions of products from more than 40 categories; – buyers located in more than 190 countries; – exchange more than 100K messages per day

We note that these sites are vast and open for a multiplicity of categories and sectors, which can lose the specificity of one's research; thus, the use of this type of site can give a variety of answers but may not keep the specificity of the product or material that a supplier is looking to find.

Given the research focus on the textile sector, an investigation was conducted to identify specialized platforms or online directories dedicated to sourcing companies operating within this industry. This process resulted in the identification of several relevant platforms, as listed in Table 2.

Table 2. *Websites related to textile*

Website	Kind of site	Activity	Other
MK2T – www.mk2t.eu	website representative of company	MK2T distributes machines, fibers, and spare parts from the largest manufacturers in France and Africa	MK2T chooses to work with the largest manufacturers of German, Swiss, and French textile machinery and accessories: Oerlikon, Trutzschler, Neuenhauser, AESA, Sohler, etc. This exclusive partnership with leaders in the textile industry guarantees MK2T customers to benefit from quality products and flawless post-sales service
COTTON USA SOLUTIONS – www.cottonusa.org	COTTON USA SOLUTIONS™ is a trademark of Cotton Council International, registered in the United States Patent and Trademark Office	This website serves as a directory of cotton suppliers in the USA	This offers the following: – supplier directory; – cotton exporters; – filter of supply program
Fashion GLP – www.fashionlgp.fr	Company website	This is an sourcing company in clothing that relies on Chinese, Indian, and Bulgarian partners	Its objectives are as follows: – finding reliable and effective sourcing solutions for fashion world; – demonstrating great reactivity and providing precise answers; – offering turnkey service from prototype to final production delivery

As is shown in Table 2 (in the last column), each site specializes in one of the following branches:

- machines for textile industry;
- fibers or raw materials for textile industry;
- clothing.

After browsing these sites, we concluded that each one was missing certain functionalities, failed to be specific, and (above all) did not offer the possibility of connecting all of the actors in the textile industry supply chains.

2.3. E-sourcing tool: definition and challenges

Speaking now of the concept of "e-sourcing," what is the definition? and what are the reasons for its use?

Several definitions have been given for this strategy; we chose the definition that was given by scanmarket.com, which was as follows: "E-sourcing is a business process that allows you to search, evaluate, select, and collaborate with existing and potential suppliers through a web platform that is accessible online. Using e-sourcing software, buyers collect information about suppliers, their products, and their prices..."

In another article about e-sourcing (Majchráková & Kremeňová, 2019), the authors began by saying, "e-sourcing is the electronic sourcing," and ended by concluding, "e-sourcing helps companies react and adapt to new trends like globalization, Industry 4.0, and digitalization as well as stay competitive under the consideration of the fast-changing environment and to those related circumstances."

According to these and other definitions, we can say that e-sourcing is a tool that can be used by companies to trigger procurement operations by selecting and choosing suppliers through electronic means.

3. METHODOLOGY AND PURPOSE OF THIS STUDY

In a study that we carried out in 2020 (entitled "COVID-19 CORONA Virus," of which a web questionnaire was sent to a set of Algerian textile companies during the first year of the health crisis), the questioning focused on the provision and use of the internet in the procurement process.

It is clear that this study was carried out in a specific field and inside Algeria, but we can say that its advantageous results could ensure a divergence of usefulness toward everyone and everywhere, because this work can be considered to be a point of liaison for all companies that have direct or indirect relationships with this quite vast sector, and it can ensure marketing, e-commerce, and e-sourcing strategies for all of these companies.

To assess tech integration in textile firms, we surveyed key decision-makers on Internet use in transactions and tech's impact on sales. Though the sample was small, responses from directors ensured the relevance and value of the insights.

Following the results of this questionnaire (which will be discussed below), the idea of our work was to design a platform that linked all these companies with the following aims:

- simplify search and selection of suppliers;
- present companies in this sector and have them linked together on one side and have them join outside country on other side;
- activate communication networks between customers and suppliers in this sector around world;
- optimize supply chains by connecting their players in same platform and simplifying search and selection of suppliers;
- standardize language of this sector and bring together all of its companies with view of minimizing durations and costs.

This work is intended to be a decision-making tool for those companies that are active in the textile field; it is considered to be the product of a study that was carried out at the heart of the textile sector during the time of the health crisis that was caused by the COVID-19 pandemic in order to remedy the problems that were related to the disruptions that were experienced by the information flows within the supply chains of the companies in this sector which generated negative results such as stock shortages, delays in deliveries, etc. Also, we note that all this was justified by figures, images, and data that emerged from practical case studies such as McKinsey & Company (2020) and Izsak and Shauchuk (2020).

4. RESULTS AND DISCUSSION

To analyze their situations and get an idea of the information and communications systems of the companies that were interviewed, we first asked the questions presented in Table 3.

Table 3. *Questioning results*

Questions	Answers
Do all of the structure managers of your company have professional email addresses?	– 50% yes; – 50% no
During difficult times such as the case of mandatory confinement due to COVID-19, did you hold one or more online work meetings?	– 66.7% never; – 16.7% often; – 16.7% several times
Is your company concerned with the following tools: e-sourcing, e-banking, e-procurement, and e-commerce?	– 50% not concerned; – 16.7% were concerned only with e-banking; – 16.7% were concerned by e-sourcing, e-procurement, and e-banking; – 16.6% were concerned by e-commerce, e-sourcing, and e-banking

Through the results of these questions that are shown in the table above, the following remarks emerged:

- The lack of managers of the structures of professional emails can say that these are directions based on a paper.
- More than 60% of the responses affirmed the non-recourse to online meetings during confinement, which gave birth to the following assumptions: either they present themselves to ordinary meetings (which shows no respect for the confinement rules), or they do not attend the meetings.
- For the third question, we saw that half of the questioned companies did not know or were not concerned with one of the services that were provided online, which resulted in costs that were borne by the companies, such as travel, paperwork, transport charges, delays in sending and responding, etc.

Summarizing everything that has come before, we can say that the COVID-19 crisis negatively influenced the majority of these companies and to a higher degree for those that usually relied on the use of information and communication technologies.

Assuming that electronic purchasing network and other information and communication technology tools can help manufacturers optimize their supply chains, the following two questions were asked for the managers who responded to this questionnaire (knowing that they were mostly company directors, which meant that they represented the stakeholders in the managerial decision-making in this sector).

The first question: by using e-sourcing, did you see that your supply chains would be optimized?

So, the majority of the responses were "Yes" (66.7%). The remaining two options, "Optimized by less than 25%" and "No" were equally scored.

The second question: "In your opinion, how could your procurement processes be optimized?"

The answers varied among the respondents; e.g., "a website linking the players," "computerization," and "software that connects suppliers and buyers via the internet" (Fig. 1).

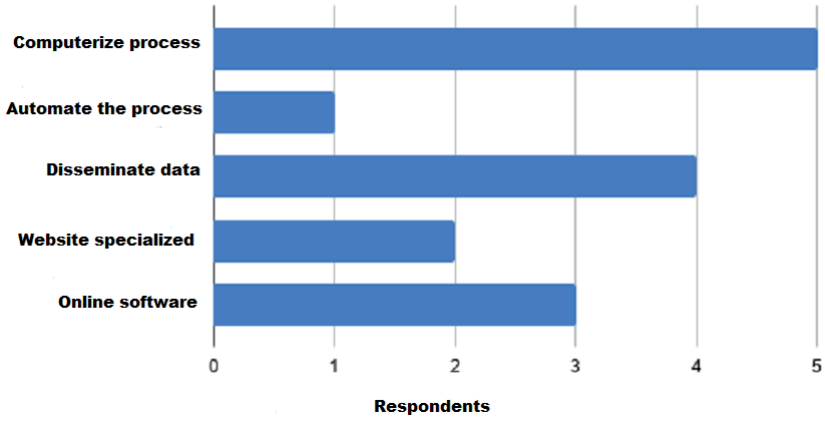

Fig. 1. *How to optimize procurement processes*

Analysis of the supply chain data revealed a significant gap between the potential benefits of ICT-enabled management systems and their actual implementation within the textile sector. While a few companies demonstrated initial efforts in this direction, as indicated in earlier findings, the overall adoption of these technologies for process optimization remained limited. However, respondent feedback from the latter stages of the survey suggests willingness among industry leaders to explore and integrate computer-aided solutions.

These answers were the basis of our idea of having thought of designing an e-sourcing website that linked all of the companies in this sector inside Algeria (as well as enabling them to join textile companies around the world, with the aim of simplifying contacts and optimizing supply chains by minimizing sourcing time or the search and selection of suppliers). We justified ourselves with this sentence "Creating a website has become a crucial issue for many professionals" (Simplébo, 2023). According to it, "The creation of a website can be ensured by one of four solutions, the first one is to design a website alone using online creation software."

So, we proceeded to design our platform by opting for this solution. We found many platforms on the internet that offered the creation of such a site: WIX, Go Daddy, JIMDO, Weebly, etc. We choose Cobiro.com because, "The content stems from the analysis of the need," said Dedieu (1999), so the content of this platform must above all meet the objectives that were expected by this study. Before starting this step, however, we needed to establish a well-studied and structured approach where the authors summarize the five stages of the creation of a site; namely, planning, design, production, putting online, and exploitation. Bureau d'Appui Pédagogique (2020) envisaged six stages: start, analysis, model, production, evaluation, installation, and maintenance.

Since our idea present a result of research and not a commercial project, our approach needed to be summarized in just three steps (as shown in Figure 2).

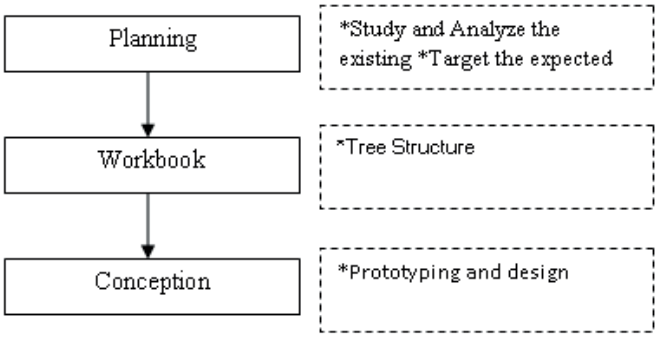

Fig. 2. *The approach of our study*

Starting with the first step and following what was preceded, we tried to plan this project using the five Ws and the one H method that was defined in Capelle (2014) by the method that is used to plan a project by answering the questions presented in Table 4.

Table 4. *Planning by five Ws and one H method*

Question		Response
What?		a website
Who?	Who is the builder?	the authors of this article
	Who is using it?	– any company that is active in the textile sector and its annexes; – suppliers for the textile industry, raw materials, equipment, spare parts, etc.; – the clients of textile companies
Where?		in Algeria and worldwide (on the internet)
When?		in 2021
How?		– simplify the selection and search of suppliers; – present the companies of this sector as well as their products and make them link together on one side and make them join outside the country on the other side; – activate communication networks among the customers and suppliers in this sector around the world; – optimize the supply chains by connecting its players in the same platform and simplifying the search and selection of suppliers; – standardize the language of this sector and bring together all of its companies with a view to minimizing durations and costs; – publish consultations and tenders on this site; – follow the offers by the launcher of the consultation
Why?		optimize and develop the supply chains of this sector

5. CONCLUSION AND FUTURE RESEARCH OPPORTUNITIES

Arriving at the stage of establishing the specifications of this site (and after asking a series of questions), the results are as shown in Figure 3.

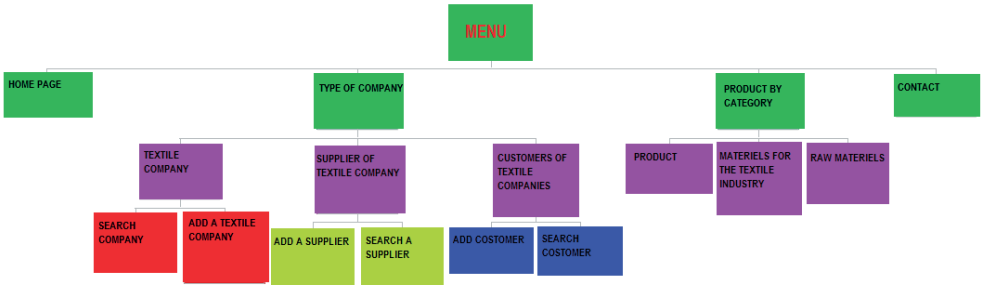

Fig. 3. *Site's tree*

So, we were able to design a tree structure of our platform for a better illustration of our ideas, noting that we used the online software (GlooMaps) to draw this tree:

- Each line of this tree represents a link level to a new page.
- It should be noted that the pages and sub-pages are linked to each other and that entering information in a field on a given page can contribute to enriching the database of another page; for example, if filling in the field for adding a new company, it shows the arrival of a new entity in the company section as well as a new article in the Product section.

To better detect the existing relationships among the navigation pages of this site (and which somehow represent the relationships between the links of the supply chains of these textile networks), we established a relationship diagram on the EdrawMax software tool (Fig. 4).

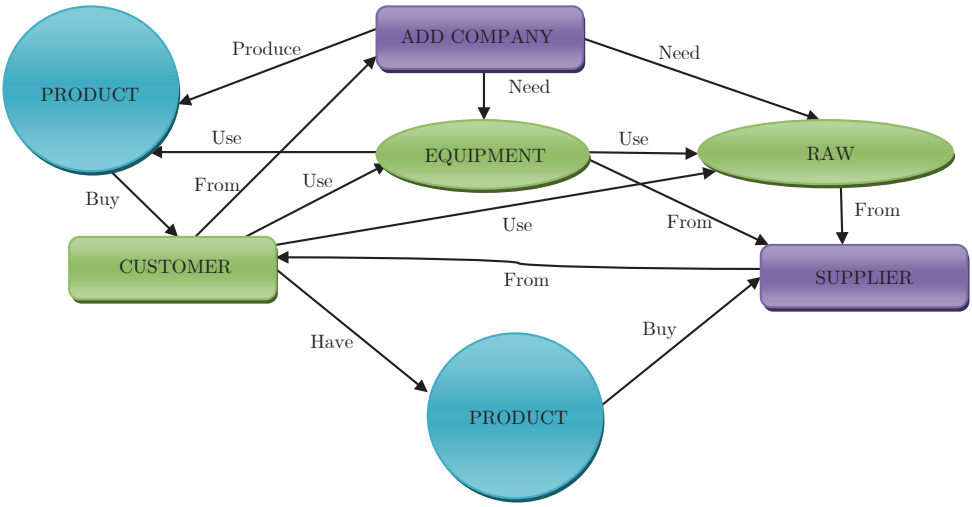

Fig. 4. *Relationship diagram*

As such, we are beginning to design our large directory of textile companies, their suppliers and their customers – something that will add a benefit to the supply chains of the textile industry at the national level.

5.1. An e-sourcing website

By saying a textile supply chain means the presence of different types of upstream activities (fiber producers, chemical industrialists, agricultural, etc.) and downstream (clothing, furniture companies, household items, coating soil, etc.) in addition to the three activities of this industry (the transformation of rides, fabric manufacturing, and the coating of fabric and textiles), without forgetting that this industry is also related to the providers of goods and services (equipment manufacturers, training, design, engineering, computer, subcontractors, etc.) (Government of Canada, 2008),

then this industry is directly and indirectly linked to several other sectors that will also be present on this platform and interact by offering goods or services (as suppliers) or by looking for goods or services (as customers).

As we see in the plan of our platform that we designed by Edraw Max, the user can access and use the platforms according to the functionality he/she seeks to be added or look for a company that is active in textile, a customer, or supplier, or request the listings of the companies that are present in each section (Fig. 5).

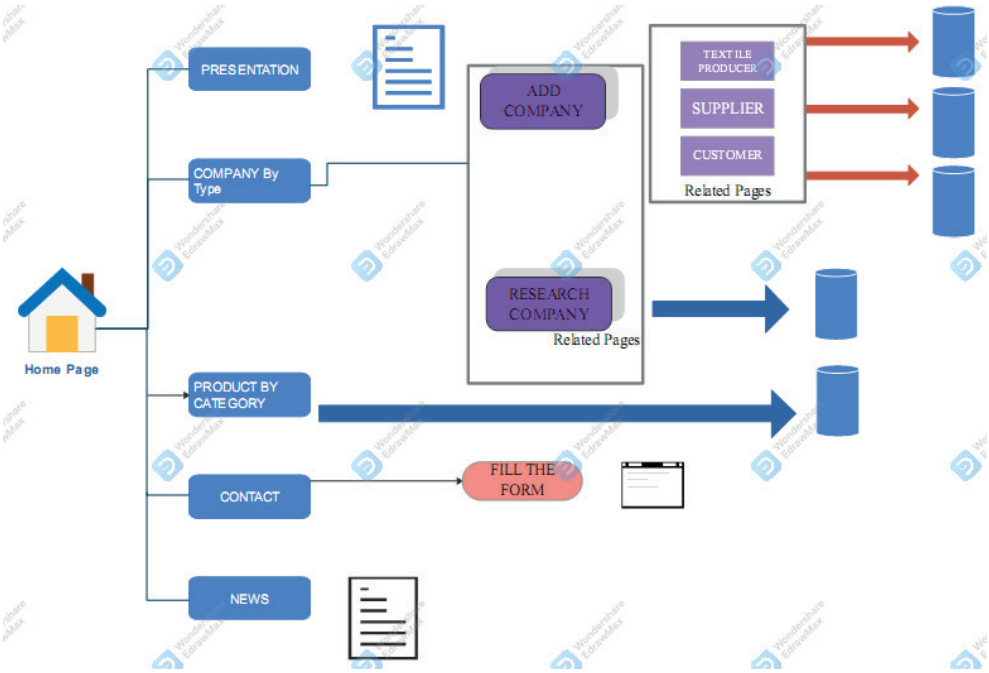

Fig. 5. *Sitemap*

As we can see, this plan facilitated our work on Cobiro since we directly started the operation of creating pages and sections. In what follows, we chose some interfaces of this platform (Figs. 6 and 7).

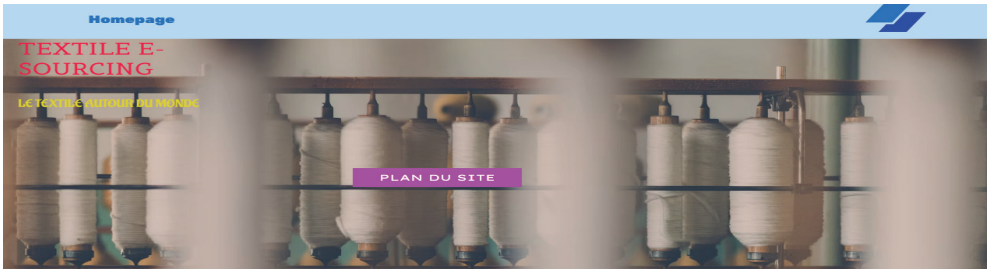

Fig. 6. *Home page of site*

Fig. 7. *Sitemap page*

On this second page, we can find the necessary links for access to all of the operations of addition, search, and the reading and navigation on the other pages; simply click on the buttons to move to the desired pages.

For example, by clicking on the "Contact us" button, each person who enters this site can leave a message just by filling out the contact form (as shown in Figure 8).

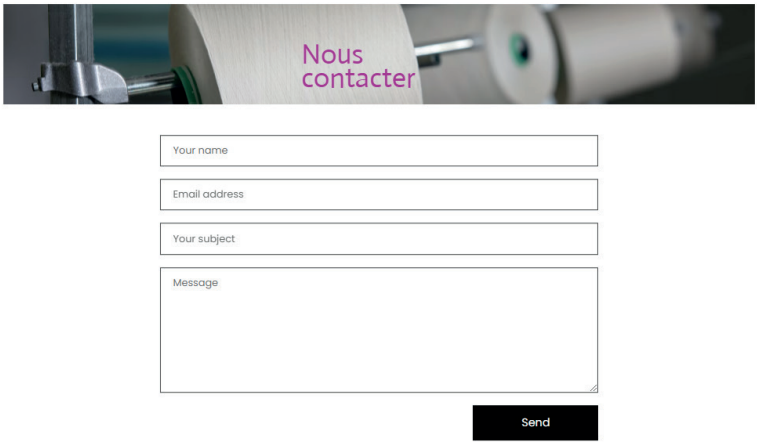

Fig. 8. *Contact page*

5.2. Findings and future research opportunities

In a study that was carried out that proposed a cooperative platform for industrial distributors (Pietroń, 2020), the author concluded by saying that modern industrial companies must interact with each other in the same network based on cooperative marketing in order to develop and strengthen their potentials (but, above all, to obtain the best positions on the market).

Starting from this idea of the need to interact with an unlimited set of companies on the same network to help them benefit each other as far as it is concerned through the trade relationships that are triggered with each other. Based on the information that was obtained by analyzing the results of the questionnaire object of our study, this proved that an electronic network with its customers, suppliers, and all of the actors that can be present in their supply chains is essential for companies that are active in the textile sector. We finally arrived at the point of proposing an idea in order to find a solution for the problems that were posed at the level of the supply chain of the companies in this sector – especially during the difficult moments. This idea was to design a platform that linked all of the companies that were active in this field as well as its customers and suppliers. Everyone around the world will be invited to join this platform with the aim of simplifying searches and selecting operation suppliers and give more flexibility to the information flows among the major players in these supply chains.

In the existence of research that has tried to offer a platform (especially for the textile industry; e.g., Syahrina and Kusumasari (2020), the opportunity added by our study to the scientific research in order to offer a decision tool for industrialists by using information and communication technologies is the creation of this platform. This will not be limited to use by Algerian textile companies but rather can be a directory for all textile companies, customers, suppliers, and any others who can be in direct or indirect contact with these entities.

In summary, the design of this site can ensure the design of a large directory of companies that are active in the field of textiles as well as those entities that have direct relationships with this sector (such as a customer or a supplier). To get to the point of being representable to professionals in this field (and possibly be supported by contractors in the future), however, this work still needs another professional touch in other to provide other functionalities (such as the following):

- launching online consultations and tenders on this platform;
- making fairs and online auctions;
- placing orders online;
- ensuring invoicing and payment operations on this database.

Finally, this list is limitless; following research that will be carried out in the future, this work can be improved with the aim of optimizing textile supply chains on an international scale.

REFERENCES

Aguezzoul A. & Ladet P. (2006). Sélection et évaluation des fournisseurs: Critères et méthodes. *Revue française de gestion industrielle*, **2**, pp. 5–27. **URL:** https://hal.science/hal-00365301v1/file/Aguezzoul_AFGI.pdf [28.02.2023].

Ben Jeddou M., Bali Kalboussi W. & Dhouibi A. (2015). Application de la méthode AHP pour le choix multicritères des fournisseurs. *Marocaine de Recherche en Management et Marketing*, **12**, pp. 60–71. **DOI:** https://doi.org/10.48376/IMIST.PRSM/remarem-v0i12.3772.

Bureau d'Appui Pédagogique. (2020). *Créer un site Web de cours en 6 étapes - Aide-mémoire*. Polytechnique Montréal, Canada. **URL:** https://www.polymtl.ca/livreuap/docs/documents/conseils_site_Web-p236.pdf [28.02.2023].

Capelle J. (2014). *Impulsion de la e-formation professionnelle dans le domaine de la nutrition par la Direction Générale de la Santé dans le cadre du PNNS 3*. Master's Thesis. Loraine, University of Loraine, France. **URL:** https://docnum.univ-lorraine.fr/public/BUMED_MSPM_2014_CAPELLE_JULIE.pdf [28.02.2023].

Cochran J.J., Cox L.A., Jr., Keskinocak P., Kharoufeh J.P., Smith J.C. & Beil D.R. (2011). Supplier Selection. In: J.J. Cochran, L.A. Cox, P. Keskinocak, J.P. Kharoufeh & J.C. Smith (Eds.). *Wiley Encyclopedia of Operations Research and Management Science*. **DOI:** https://doi.org/10.1002/9780470400531.eorms0852.

Dedieu C. (1999). *Conception, Réalisation et Développement de Sites Eeb à l'École Normale Supérieure de Lyon* [Master's Thesis]. Lyon: University of Claude Bernard. **URL:** https://www.enssib.fr/bibliotheque-numerique/documents/61828-conception-realisation-et-developpement-de-sites-web-a-l-ecole-normale-superieure-de-lyon.pdf [28.02.2023].

Government of Canada. (2008). *Roadmap for the information and communication technology sector: innovation through partnership*. Quebec: Groupe CTT. **URL:** https://publications.gc.ca/collections/collection_2023/isde-ised/Iu44-229-2008-eng.pdf [28.02.2023].

Izsak K. & Shauchuk P. (2020). *Advanced Technologies for Industry – Sectoral Watch. Technological Trends in the Textiles Industry*. Brussels: European Commission. **URL:** https://monitor-industrial-ecosystems.ec.europa.eu/sites/default/files/2021-01/Technological%20trends%20in%20the%20textiles%20industry.pdf [28.02.2023].

Jääskeläinen A., Schiele H. & Aarikka-Stenroos L. (2020). Getting the best solution from a supplier – A social capital perspective. *Journal of Purchasing and Supply Management*, **26**(5), 100648. **DOI:** https://doi.org/10.1016/j.pursup.2020.100648.

Knight L., Meehan J., Tapinos E., Menzies L. & Pfeiffer A. (2020). Researching the future of purchasing and supply management: The purpose and potential of scenarios. *Journal of Purchasing and Supply Management*, **26**(3), 100624. **DOI:** https://doi.org/10.1016/j.pursup.2020.100624.

Majchráková J. & Kremeňová I. (2019). E-sourcing (electronic sourcing) – essential element of e-commerce (electronic commerce). *Pošta, Telekomunikácie a Elektronický Obchod*, **14**(2), 34–39. **DOI:** https://doi.org/10.26552/pte.C.2019.2.5.

McKinsey & Company. (2020). *The state of fashion 2021*. **URL:** https://www.mckinsey.com/~/media/mckinsey/industries/retail/our%20insights/state%20of%20fashion/2021/the-state-of-fashion-2021-vf.pdf [28.02.2023].

Mebarki N. & Berass D. (2015). L'economie fondee sur la connaissance et les technologies de l'information et de la communication: un etat des lieux de quelques entreprises de la Wilaya d'Oran. *Revue Économie, Gestion et Société*, **10**. **DOI:** https://doi.org/10.48382/IMIST.PRSM/regs-v0i10.9368.

Neessen P.C., Caniels M.C., Bart V. & Jong J.P. (2021). How and when do purchasers successfully contribute to the implementation of circular purchasing: A comparative case-study. *Journal of Purchasing and Supply Management*, **27**(3), 100669. **DOI:** https://doi.org/10.1016/j.pursup.2020.100669.

Nikookar E., Varsei M. & Wieland A. (2021). Gaining from disorder: Making the case for antifragility in purchasing and supply chain management. *Journal of Purchasing and Supply Management*, **27**(3), 100699. **DOI:** https://doi.org/10.1016/j.pursup.2021.100699.

Pietroń R. (2020). A cooperation platform for distributed manufacturing. *Decision Making in Manufacturing and Services*, **14**(2), 145–163. **DOI:** https://doi.org/10.7494/dmms.2020.14.2.3650.

Simplébo (2023). *Guide complet pour créer un site internet*. **URL:** https://blog.simplebo.fr/comment-creer-site-internet-professionnel [22.12.2021].

Syahrina A. & Kusumasari T.F. (2020). Designing user experience and user interface of a B2B textile e-commerce using five planes framework. *International Journal of Innovation in Enterprise System*, **4**(1), 44–55. **DOI:** https://doi.org/10.25124/ijies.v4i01.47.

Taherdoost H. & Brard A. (2019). Analyzing the process of supplier selection criteria and methods. *Procedia Manufacturing*, **32**, 1024–1034. **DOI:** https://doi.org/10.1016/j.promfg.2019.02.317.