



SHORT COMMUNICATION

The Digitalization of Production Processes : A Priority Condition for the Success of an Efficient Marketing Information System. Case of the Swimwear Anywhere Company

La Digitalización de los Procesos de Producción: Condición Prioritaria para el Éxito de un Sistema de Información de Marketing Eficiente. El caso de la empresa Swimwear Anywhere

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ABSTRACT

The digitalization of production operations is considered today as a decisive condition capable of stimulating the spontaneous and regular use of an effective and operational marketing information system. Certainly, thanks to digitalisation, companies can: increase their profitability; simplify working methods, automate production processes and interactions between the various employees responsible for monitoring the smooth running of production activities as well as between the latter and the heads of the marketing department who prepare the marketing strategies to be executed. Indeed, if companies want to increase their sales volumes and be able to take advantage of the new opportunities that digital will offer them, they are encouraged and better than ever to quickly computerize their production processes. To do this, they must rely on well-documented marketing strategies that emphasize customer orientation and ensure that the latter receives a personalized offer while benefiting from the operational functionalities provided by marketing information systems.

Keywords: Digitization of Production Processes; Industry 4.0; Marketing; Information System; Groupware; Workflows; Integrated Management Software.

RESUMEN

La digitalización de las operaciones de producción se considera hoy una condición decisiva capaz de estimular la utilización espontánea y regular de un sistema de información comercial eficaz y operativo. Ciertamente, gracias a la digitalización, las empresas pueden: aumentar su rentabilidad; simplificar los métodos de trabajo, automatizar los procesos de producción y las interacciones entre los distintos empleados encargados de controlar el buen funcionamiento de las actividades de producción, así como entre estos últimos y los responsables del departamento de marketing que preparan las estrategias de marketing que deben ejecutarse. En efecto, si las empresas desean aumentar sus volúmenes de ventas y poder aprovechar las nuevas oportunidades que les ofrecerá lo digital, se ven animadas y más que nunca a informatizar rápidamente sus procesos de producción. Para ello, deben apoyarse en estrategias de marketing bien documentadas que hagan hincapié en la orientación al cliente y garanticen que éste reciba una oferta personalizada al tiempo que se beneficia de las funcionalidades operativas que ofrecen los sistemas de información de marketing.

Palabras clave: Digitalización de los Procesos de Producción; Industria 4.0; Marketing; Sistema de Información; Groupware; Flujos de Trabajo; Software de Gestión Integrada.

INTRODUCTION

In a current global economic context marked by a multiplicity of commercial exchanges and the dominance of new information and communication technologies, the companies located in Morocco are more convinced than ever of the critical importance of investing in the digitalization of production processes, which is growing, especially given the heightened competition exerted by fierce competitors intervening all the time in a constantly changing environment and the permanent concern of these businesses to satisfy the requirements and expectations of their demanding consumers in a faster and more cost effective manner.^(1,2)

Indeed, the digitization of these processes has become an indisputable reality, especially at a time when we're talking about the fourth industrial revolution, also known as Industry 4.0, a term that first appeared in Germany and also known as "industry of the future," which is characterized by the interconnection and real-time interaction between intelligently automated production systems, marketing information systems, and stakeholders throughout the value chain within the tomorrow's factory and which has as a major objective to achieve the design of products and / or services that are less expensive, innovative, personalized, and efficient, which are able to exactly meet the expectations and needs of customers.⁽³⁾

These are therefore operational systems guaranteeing permanent communication and collaboration between a machine and a flexible human factor who is no longer obligated as before to repeatedly perform the same tasks and who is likely also through these devices to increase its productivity and thus achieving the production of products and / or services of high quality and at the lowest cost.^(4,5)

On the other hand, and in the same vein, we all know that a marketing information system's primary goal is to guide major decisions relating to a marketing strategy that seeks to market products to customers and that generally prioritizes the loyalty of a specific group of customers with specific characteristics as well as the attraction of new customers.

In the same context, an automated production system aims to increase a company's speed and volume of production at the lowest possible cost, and it must take into account all of the decision-makers' provisions and orientations, which are normally in perfect alignment with strategic and operational decisions saved in the marketing information system.^(6,7)

From there, it can be argued that the automated production system is a decision support system insofar as the person responsible for controlling it is able to follow the progress of production activities in various stages at any time, i.e. follow and control the entire product life cycle from design to completion of the production process, identify the sources of failures that may obstruct the system's proper functioning and plan thus favorable maintenance without forgetting finally the possibility of returning at any time to the databases entered which contain relevant information relating to the production volumes carried out previously per year as well as the customers for whom they were intended.^(8,9)

The objective of this article is therefore to highlight the importance of the complementarity that must exist between the systematization of the production process and the marketing information system and this by opting for a reference model represented by the limited liability company called SWimwear Anywhere given that the latter has these decision support mechanisms and has been using them for several years past to such an extent that we allow ourselves to move forward immediately that they are even the reason for its continued existence in the competitive market which is constantly changing.

METHODS

As a result, the nature of our work is descriptive and analytical, as we seek to demonstrate the significant added value that providing these intelligent systemic tools that communicate with one another in real time can provide to companies through operational software, particularly groupwares, workflows, and data mining, and which thus will allow them to respond quickly to the needs and expectations of their customers.

Thus and in order to achieve our objective of responding to the problem of this article, a questionnaire was drawn up that we sent to the staff of the limited liability company called SWimwear Anywhere and whose responses were the basis of our descriptive and analytical analysis that was made explicit during this modest work and which consequently allowed us to answer to our problematic which is the object of this article and which can be summarized as follows:

To what degree may digitization of a company's production processes be regarded a prerequisite for an efficient marketing information system's success ?

RESULTS AND DISCUSSIONS

Presentation of the SWimwear ANywhere Company

The company SWimwear ANywhere is an original manufacturing plant, which is built on an area of 4 500 m² (of which the actual constructed area is 2 253 m²) and which works as a subcontractor, while receiving the raw material from the suppliers of its customers (located in Italy, England, Spain, China, Lithuania, Turkey, etc.) directly to Morocco and it exports them to the destination indicated by its customers.

The firm is located in the Moroccan city of Salé, specifically in the industrial zone Hay Errahma, Tabriquet, and specializes in swimwear and lingerie. We can therefore say immediately that its sector of activity is the manufacture, import and export of clothing. In addition, the company employs around 400 employees and has around 350 specialized machines, not to mention a cutting department made up of 6 tables, 6 saws and a plotter for lectra confection.

It was founded 20 years ago and we can say that over all its years it has acquired a great deal of experience but also valuable know-how and why in the aforementioned field. It is therefore no coincidence that today, it manages to produce all kinds of lingerie and complex swimwear such as bras, boxers, suspenders, thongs, headbands, bikinis, tankinis, skirts and pants.

In this same context, it is also important to point out that the company SWimwear ANywhere has worked with large companies that market famous brands recognized internationally such as, Gottex, Eveden group, Panache, clothing management Technology (CTM), as well as other brands and we can say that these companies without exception all recognize his superior service and highly professional business acumen.

On the other hand, in order to continue to exist and satisfy its customers by ensuring that it meets and anticipates their unforeseen future needs by offering high quality products in order to retain them, the company SWimwear ANywhere is committed to mobilizing distinctive skills and promoting all innovative and creative ideas of added value, as well as all forms of art imagined by famous stylists around the world that are related to his field of activity.

In this context and given the fierce competition existing in a constantly changing environment, the company seeks to open up to new customers of different nationalities. In particular, it is interested in those from countries such as England, the United States, Russia, Latin America, Spain, Hungary, the United Arab Emirates, Sweden, Belgium, the United Arab Emirates and South Africa.

Perfect coordination between the two marketing and production departments for better attractiveness of the products

Considered as capital for the rise of the company SWimwear ANywhere, the marketing department is in charge of boosting the visibility of signs manufactured by the factory and consequently increasing sales. Thus, we can say that the rather complex tasks assigned by this fact to the team working within this department require it to have certain qualities and skills, since it must always demonstrate an ability to anticipate customer needs and expectations while keeping an eye on competing practices.

Indeed, the company's marketing department is required to define and develop a flexible and promising marketing strategy capable of stimulating and straightening out the expected favorable evolution of sales volume which must be executed at the level of the production department using the new digital processes put in place. To succeed in meeting this challenge, the leaders of the swimsuit manufacturing plant located in Salé attach great importance to policies seeking to arouse the interest of targets to make them want to know more about the company SWimwear ANywhere, to buy its products and to entice them to delegate part of their orders received from other customers to prepare them in Morocco and more specifically in Salé.

Thus, and given a constantly changing business environment, regular monitoring of the variables that risk positively or negatively impacting society is required. In other words, variables such as swings in imposed tariffs, as well as new rules and authorized government agreements, should be a top focus.

Similarly, the efforts of these two departments' employees (marketing and production) must be directed toward understanding what the various customers geographically dispersed all over the world are actually looking for in order to satisfy them quickly and thus enable the company SWimwear ANywhere to stand out.

Finally, we saw that the firm has developed a high-quality marketing information system as well as a digital production system, both of which have had a big and good influence on sales promotion. Thus as a result of this automated manufacturing method, the firm is able to create a big volume of products while maintaining complete control over the whole production process.

The marketing department, on the other hand can objectively and regularly analyze but also reframe the company's positioning with the help of the marketing information system, because this new tool allows it to assess gaps, concretely identify strengths, and implement relevant strategies as a result. We also emphasize that through the database made possible by the automated production system of the company SWimwear ANywhere, we can identify all the diversified products that it manages to produce and market by following respecting the established strategy and prefixed operational and strategic decisions. In the same context and

from an automated production system, we can also see that the main customers of the company SWimwear ANYwhere are: *EVEDEN, PANACHE, CMT « Clothing Management Technologie Ltd and SEASPRAY*

Description of the functioning of the SWimwear ANYwhere company's production chain

The company SWimwear ANYwhere has a cutting room that is well-equipped with world-renowned cutting-edge machinery and technology, and its operation is overseen by a highly skilled, careful lingerie and swimwear team.

The team may prepare over 4 000 complicated pieces each day in this area, a work that necessitates a high level of precision, positioning, and respect to complex models. As a result, it is no surprise that the company SWimwear ANYwhere has earned the distinction of having the greatest cutting department in North Africa, capable of managing and delivering 100 percent of the works of art desired by its customers and so satisfying all of their expectations. On the other hand, by following the same logic and approach consisting in understanding and describing the working environment of the production chain of the company SWimwear ANYwhere, we can notice that its production workshop is divided into three complementary services namely: the management team, the workforce operating the machines and the maintenance team which is made up of highly qualified mechanical technicians.

Thus, in order to stimulate better organizational efficiency while promoting flexibility among its staff, the management team personally studies the clothing draws up a dashboard where it determines a detailed description of the tasks to be performed by each employee and sets the necessary time allocated to each for the performance of their assigned work.

In addition, she manages the workers and thinks about the strategies that will allow her to follow the weekly and monthly plans, to respect the delivery dates required by the customers and to choose the qualified tailors who will create the samples and who will therefore show the paths to follow for the rest of the workers.

In the same context and in accordance with our observations recorded following our visit to the company SWimwear ANYwhere, we can also deduce that its sewing team is made up of highly specialized machinists, each mastering their machines for fast and flawless operations and whose combination of their efforts results in the production of high-performance, high-quality works of art.

Finally, we must also underline the great added value of the packaging team and that of the conditioning. Indeed, the first performs the final quality control, sorts, stacks the clothes and prepares them for shipment while also establishing and providing invoices. The packing team at SWimwear ANYwhere, on the other hand, makes every effort to ensure that all garments are prepared in perfect condition so that they are ready for shipment.

The categories of products diversified and marketed by the company SWimwear ANYwhere

Thanks to this new automated production system, SWimwear ANYwhere is able to offer its customers a diversified range of products that perfectly meet their needs and expectations. Thus 34 % of its overall production is made up of headbands, 27 % represents the part reserved for tankinis, 1 % is that oriented towards bikinis, 20 % is that devoted to pants, and finally the remaining 6% and 12% are respectively intended for the production of bras and skirts.

The digitalization of production processes: a lever of the company's monthly production capacity swimwear anywhere

In a rapidly changing economic universe marked by the prevalence of new information and communication technologies, the company SWimwear ANYwhere has always been convinced, and now more than ever, of the great added value that investment in the digitization of production processes can provide in order to be able to produce quickly while reducing production costs and thus satisfy demanding customers.

Indeed, the leaders of this company have always been real supporters defending the idea of having a systemic tool allowing them to accelerate the rate of production, to control the quality of the units produced but also to stimulate more productivity and profitability among employees.

It is therefore obvious that with the help of such a digital transformation of the production process it becomes easy to: search for the desired information instantly ; to save time; to keep a traceability on the strategic and operational decisions taken previously and which relate to the production and to the beneficiary customers of the orders to be prepared; to control who does what ? when ? Why ? and how?; to promote communication, collaboration between employees and therefore to achieve excellence in production and which will therefore allow the company to generate satisfactory turnover that even exceeds the expectations prefixed by the leaders of the company SWimwear ANYwhere.

In what follows we will try to highlight the impact that the digitization of the production process has had on production capacity as well as on the diversity of attractive products prepared and marketed by the company SWimwear ANYwhere by focusing our analyzes on years 2014, 2015 and 2016.

Thus and from the data collected concerning the monthly and diversified production of swimsuits of the company SWimwear ANYwhere and which relate to the years 2014, 2015 and 2016, we can come out with the following conclusions:

First and according to the evolution of the monthly production of the different brands of swimsuits manufactured by the company SWimwear ANYwhere in 2014 as well as the distribution of the overall production under the same year according to the different customers of the company, we come to notice that:

- 66,69 % of the total production carried out in Salé is intended to meet the needs expressed by customers requesting the Profil brand (ie 387 676 units manufactured under the Profil brand out of a total of 581 267 units).

- 32,48 % of total production is reserved for customers interested in the Gottex brand (ie 18 8774 units manufactured of the Gottex type).

- 0,79 % of the units produced are directed towards customers preferring the Mario brand (ie 4 572 units).

- Finally, 0,04 % of swimsuits manufactured by the company SWimwear ANYwhere are transported in January 2014 in order to satisfy orders from customers interested in the Russia brand (ie the remaining 245 units).

By continuing our depth analysis, we deduce that the overall monthly production comprising both the Mario, Russia, Gottex and Profil brands is growing during the first five months, going respectively from 7,93 % in January to 11,54 % in May (i.e. production increased from 46 099 units in January to 67 076 units in May).

Then, we recorded a decrease of 6,59 % in June before relaunching again throughout the period going from July to September, since it goes from 7,48 % in July to 10,75 % in September (i.e. 43 462 units manufactured in July and 62 508 units produced in September).

However, we also observe a slight decrease in the monthly production of swimwear estimated at 9,66 % in October before resuming its favorable growth rate in November when it reached 11.60%. Finally, we note that there is no unit produced by the company SWimwear ANYwhere during the whole month of December 2014.

We can therefore conclude that what characterizes much more the evolution of the monthly production of each brand of swimsuit carried out by the company SWimwear ANYwhere during the year 2014 is above all the great obvious predominance of the Profile brand followed by that of Gottex.

Thus and after this important information concerning the overall production carried out by the company SWimwear ANYwhere for the year 2014 as well as the evolution of the quantities produced monthly and which are intended for several customers, let us now analyze that relating to the year 2015:

Therefore and referring to the distribution of the overall production of swimsuits manufactured and shipped by the company SWimwear ANYwhere for the year 2015 to these various customers from several countries, we can conclude that the overall production achieved during this year is divided as follows :

- 70,60 % of the overall production is directed to Profile brand customers.

- 28,07 % of all swimwear pieces produced for this year are devoted to meet demands of customers preferring the Gottex brand.

- Finally, we observe that only 1,33 % of all units produced are routed towards customers of the Mario brand.

On the other hand, our analysis of the evolution of the overall quantities produced monthly for the year 2015 allowed us to notice that the overall monthly production during this year was characterized by an average rate of 9,58 % growth throughout the period from January to June.

Then it recorded a decrease ranging from 7,49 % in the month of July to 6,89 % in the month of October with a very low level achieved in the month of August, which amounted to 3,2 %. This last result is due to the fact that the quantities ordered by customers of the Gottex and Profil brands have decreased, respectively from 4 043 units to 932 units for the Gottex brand (between July and August) and from 46 101 units to 20 455 units for the Profile brand during the same period.

Finally, the period extending from November to December is distinguished by the increasing rate of the overall monthly volume of swimwear production since it rose from 8.44% in the month of November to 9,28 % during the month of December 2015.

On the other hand and being interested in analyzing the evolution of the monthly production of swimsuits of different brands manufactured by the company SWimwear Anywhere for the year 2016 we can record the following :

We can clearly see that of all the quantities produced (all brands) for 2016, the share of production for the month of January was estimated at 7,63 % before registering a slight growth in February during which it reached 8,21 %. Then, the latter evolved at a decreasing pace between the months of March and April, going from 7,28 % to 5,39 % respectively.

By continuing our analysis, we can also say that the upward recovery in the volume of overall monthly production was the distinguishing feature of the entire period from May to July, since the shares of the overall monthly production during this entire period compared to the overall production for this year have increased from 7,81 % in the month of May to 10,97 % in the month of July.

In this context, it's apparent that this outcome was the consequence of new orders received by the firm

SWimwear ANywhere from new customers interested in the Maille brand. We can also note the low level of this rate (share of the overall monthly production compared to the overall production of the year) realized between the months of August and July and which passed respectively from 4,21 % to 6,68 % before resuming its increasing pace during the months of October and November, thus passing from 9.69% in the month of October to 12,02 % in the month of November.

Along the same lines, we would like to point out that this high rate achieved in November is due to the emergence of a new range of customers interested in the Penti brand. Finally, the month of December is characterized by relative decrease in the share of all the quantities produced during this month (compared to the overall production carried out for this year 2016) and which is estimated at 8,45 %.

Indeed, we note that during this month, the production of Gottex has doubled compared to that of the month of November (it went from 8 544 units to 15 122 units) and the production of the Penti brand has also experienced slight growth (from 21 950 units in November to 22 730 units in December).

In addition, we can clearly see that during the same period from November to December, the orders received from customers favoring the Maille brand experienced a sharp decline, from 34 872 units to 3 230 units and we can also note a decrease in the quantities required by customers preferring the Profile brand, which went from 23 921 units in the month of November to 21 682 units in the month of December.

The marketing information system and the production system automated: two efficient tools at the service of customer loyalty

SWimwear ANywhere company has always been very interested in refreshing its commercial relationship with customers who have decided to go to subcontractors from Asian countries such as China or those from European countries such as Turkey or Spain and this in to ensure their productions.

By Acting like this, the SWimwear ANywhere company tries to understand the reasons for these attitudes but also to find and propose attractive options which can satisfy these dissatisfied customers and consequently allow the Salé factory to survive, to continue working but also to develop its business network around the world.

Thus, the analysis of the various emails exchanged between the SWimwear ANywhere company and its various temporarily lost customers clearly demonstrates the existence of a real fierce price battle between all these collaborators.

In this context, the SWimwear ANywhere company proposes, for example, to maintain its prices previously adopted with its customers and this on condition of keeping the same quantity worked (quantities ordered by its customers) at the premises of the factory in previous years for all groups (more precisely Gottex and Profile).

One thing is certain is that this proposal will allow the factory to achieve an interesting monthly turnover, which intelligently requires repatriating a good part of the productions produced elsewhere by these customers to the SWimwear ANywhere company in Morocco.

In general and through the marketing information system as well as the automated production system available to the company located in Salé, we can count several reasons which are added to the constraint of the prices offered by the SWimwear ANywhere company and which are behind customer dissatisfaction and which leads them to transfer their productions to new subcontractors and among which we find :

- The packaging problems detected on exports insured by the SWimwear ANywhere company and observed in the warehouses of customers subject to orders processed in Morocco, which more than ever encourages the managers of the company located in Morocco to take all measures and actions necessary to ensure 100% control of all shipments.

- Poorly defined pieces of clothing.
- The pieces of clothing with missing or incorrect bar codes ;
- Items of clothing with incorrect size labels ;

It therefore appears that this co-evolution and complementarity between the marketing information system and the automated production system is of great importance, insofar as it instantly allows decision-makers at SWimwear ANywhere company to have a global view of the history of commercial relations undertaken with each customer and to have an idea of the details of each transaction (including quantities ordered, production volume, prices, delivery times, beneficiaries, etc.).

In addition, thanks to these technological tools it is easy to identify customers who are starting to transfer their productions to new subcontractors and to identify the reasons for this unexpected change.

Thus, these two systems allow us, for example, to notice that, given all the anomalies recorded on a given item that has been produced and given the pre-fixed delivery times, the companies (customers) who have sent their orders to the SWimwear ANywhere company are found therefore obliged to sanction and debit the subcontractor installed in Salé of 5\$ for each item of clothing presenting packaging problems.

A trigger indicator which should not go unnoticed and which arouses the need to mobilize efforts within the SWimwear ANywhere company in order to retain these customers.

CONCLUSION

Today, the decision taken by companies to invest in the digitization of production processes explains in a way a great awareness of the capital value of these new automatisms which are considered as efficient management methods of the production process but also the organization of the work of employees and whose contribution to the success of any marketing and/or commercial strategy is no longer to demonstrate.

Indeed, to remain today in the race of competitiveness required by the globalization of trade and opening up to a digital world and in order to continue to offer high quality products and services sought by customers, companies are better than ever convinced that the digitization of production processes has become synonymous of their continuity of existence and their survival.

It is therefore evident that with the help of the digitization of production processes, companies can win in terms of productivity, profitability, organization and responsiveness to customer needs and expectations. In addition, this digitization policy also allows them to reduce the number of tasks to be performed, human errors as well as the time to resolve certain problems which generally arise unexpectedly and to easily control in an instantaneous manner therefore all the stages of the production process.

One thing is certain is that the recourse by companies to the digitization of production processes will allow them not only to keep traceability on the activities and operations carried out previously but also and above all to rationally manage the human and financial resources made available to them and which will ultimately help them generate satisfactory financial results in terms of turnover.

On the other hand, we would also like to point out that this article was an opportunity to highlight the added value that companies can benefit from if they manage to meet the challenge of a successful complementarity between the marketing information system and the digitization of production processes and which both result from the imperative of a digital transformation which today requires placing the customer at the center of any strategy and which consequently requires companies to no longer be satisfied with simply communicating with the customer but to interact quickly with him and especially to ensure to communicate, to produce and to sell differently in order to be able to face the other competitors who intervene permanently in a competitive market in continuous change.

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