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Enhancing industrial processes in the industry sector by the means of service design

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Abstract

Improving customer experience and business performance by improving employee experience summarizes **Weasy**, Saint-Gobain Business Glass Europe's Pan-European project. Saint-Gobain BGE commissioned a project spanning countries, cultures and markets in order to design a digital transformation process requiring technical alignment, field adoption and management endorsement. Handling sales and industrial processes as a service was Attoma's winning approach in order to deliver actionable UX design recommendations while facilitating change and adoption.

KEYWORDS: supply chain design, business and industrial processes, digital transformation, industry 4.0.

Handling sales and industrial processes as a service

The Saint-Gobain Business Glass Europe (BGE) is a Pan-European B2B glass transformation business. BGE transforms large sheets of flat glass into double glazing, facades, sheets for urban property, showers, shelves, … Having concluded – following an internal management immersion – that better client experience would not be possible without improving employee experience, Saint-Gobain undertook a European wide project to improve customer service employee experience in the supply chain.

The complexity of the project was amplified by differences in local markets, local practices and organizations – the business has been built up through several acquisitions – and by differences in underlying IT systems and data management. To compound this, no less than 5 technical teams were engaged in building the unified replacement IT platform, hence the project as a whole faced an overwhelming level of complexity. Finally, business transformation doesn't happen in a pit stop, BGE's product portfolio is larger and larger, tailors to more and more specific needs.

Figure 1. From buyer's order to delivery through a seamless integrated experience.

In its bid Attoma, a leading European Service Design and UX firm headquartered in France, introduced the idea to use Service Design methods and tools to put "real life" at the very core of the project. Attoma's assumption was that designing B2B sales and industrial processes and services, are today the very same matter. Just look at the first "Service design principle" as stated in "General Principles of Service Design" by The Interaction Design Foundation (https://www.interaction-design.org/):

- **Services** should be designed based on a genuine comprehension of the purpose of the service, the demand for the service and the ability of the service provider to deliver that service.

And compare it with the following:

- **Processes** should be designed based on a genuine comprehension of the purpose of the process, the demand for the process efficiency by the agents performing the tasks which structure the process itself, and the ability of the company to deliver and ensure the quality of that process.

Moreover, just like a service, such a process is delivered and performed on a series of diverse touch-points, which require a clear understanding of the alignment model between technical components and the company organizational architecture – which is, in fact, a typical "Service blueprint" model.

Therefore, Attoma proposed Saint-Gobain BGE with a *ad hoc* approach deeply inspired by the typical methodological framework used while designing a real service.

Methodology

For instance, user research was extensive and included all concerned by the project: users, stakeholders as well as the technical team. The research covered 4 countries (France, Germany, The Netherlands, Denmark), 10 sites, 137 interviews – from the CEO and country managers to Regional and site managers as well as supply chain staff. Insights into

the technical situation was also developed through workshops with each of the 5 technical teams

Equipped with this research and its typical outcomes (personas, user journeys, use cases) several co-design workshops were held in order to establish priorities and roadmaps as well as develop a dynamic functional mock-up supported by a Design Guide. Main activities were:

- On-site immersion and interviews with various stakeholders (10 branches in 4 different countries)
- Interviews with more than 10 stakeholders in Europe (managers, producers, and distributors)
- Team interviews and workshops with employees in inside and outside sales, IT, and planning
- Two workshops to define functionality priorities
- 6 co-design workshops with the project teams (IT and sales)
- 3 on-site user tests on low fidelity prototypes
- Deliverables: a click-through high fidelity prototype (InVision) with their graphic UI resources; a Design Principles Book; a set of communication materials for internal awareness purposes.

Results

The assessment made by the BGE team with Attoma allowed to forecast several factual wins.

Beside fully satisfying tender's requirements – calling for the design of a tailor-made, global IT solution for order management, allowing a simplified order entry through a standardized process –, the design methodology ran by Attoma introduced a dramatic improvement in the CRM-CPQ-OMS chain, thanks to faster processing times and optimized coordination of customer support between inside and outside sales teams. For example, cutting down the need for external resources (paper, analogue archive, informal knowledge, etc.) is an actual time gain and reduces operator's stress.

Moreover, the service design deliverables and rituals managed by Attoma facilitated internal communication, stakeholders' alignment and decision making, while creating awareness and building knowledge on the process itself. Eventually, the clarity of the user interface and its alignment with the user mental model led to faster training.

Reflections

In large scale projects such as this, user acceptance or even advocacy is not a given, and the fact of having a design agency visiting, establishing a dialogue with users and demonstrating to them that their experience was clearly understood was a strong message. Likewise, after some initial pushback given on the technical side, not only was the service design approach subsequently understood as a clear way forward, it was also understood as a method for ensuring coherence and consistence of the project. Finally, management was convinced that the "voice of the user" and impact would actually be taken into account on the one hand while feasibility would be taken into account on the other.

At the end, the UX of the project was as much about the outcome of the project as well as the adoption of methods and the ensuing convergence of the experience of the project itself. Hence the user experience of this project is about the project as a process as well as the project as an outcome.

The success of the project was based on dealing with fears and beliefs, issues of control and confidence and – of course – communication. This lead to the production of quite a number of artifacts ranging from feedback to sites visited to board room posters and tight inclusion

of the design process as an integral and fully-fledged member of the project (at executive and operations levels). BGE sees design as a real leverageable investment that insures that the project is reality based, as an area for "zero compromise".

In the end, if BGE wants key members of their supply chain to be able to spend more time with their clients, then the matter is simple enough: their day-in day-out employee experience has to be as smooth and as efficient as possible.

Conclusions

This case study introduces a wider reflection about the practice and the identity of service design. In fact, in a general trend towards a the so called "Service Dominant Logic", spreading in the manufacturing sector, service design is asked to open itself to some key domains, as organization design, industrial processes design and Human Resources.

Moreover, at Attoma we believe that the fast-forward development of Industrial Artificial Intelligence, Machine Learning and Automation, calls for a radical review of all design processes, methods and tools in the manufacturing sector. Indeed, service design is the perfect practice candidate to embrace such a change. But it must evolve. Evidence based research, embedded in future actual projects as an explicit part of the protocol, is expected to deliver actionable insights allowing designers and managers to bear with the urgent needs of what is called the fourth industrial revolution.

Figure 2. Real life experience observation and analysis.

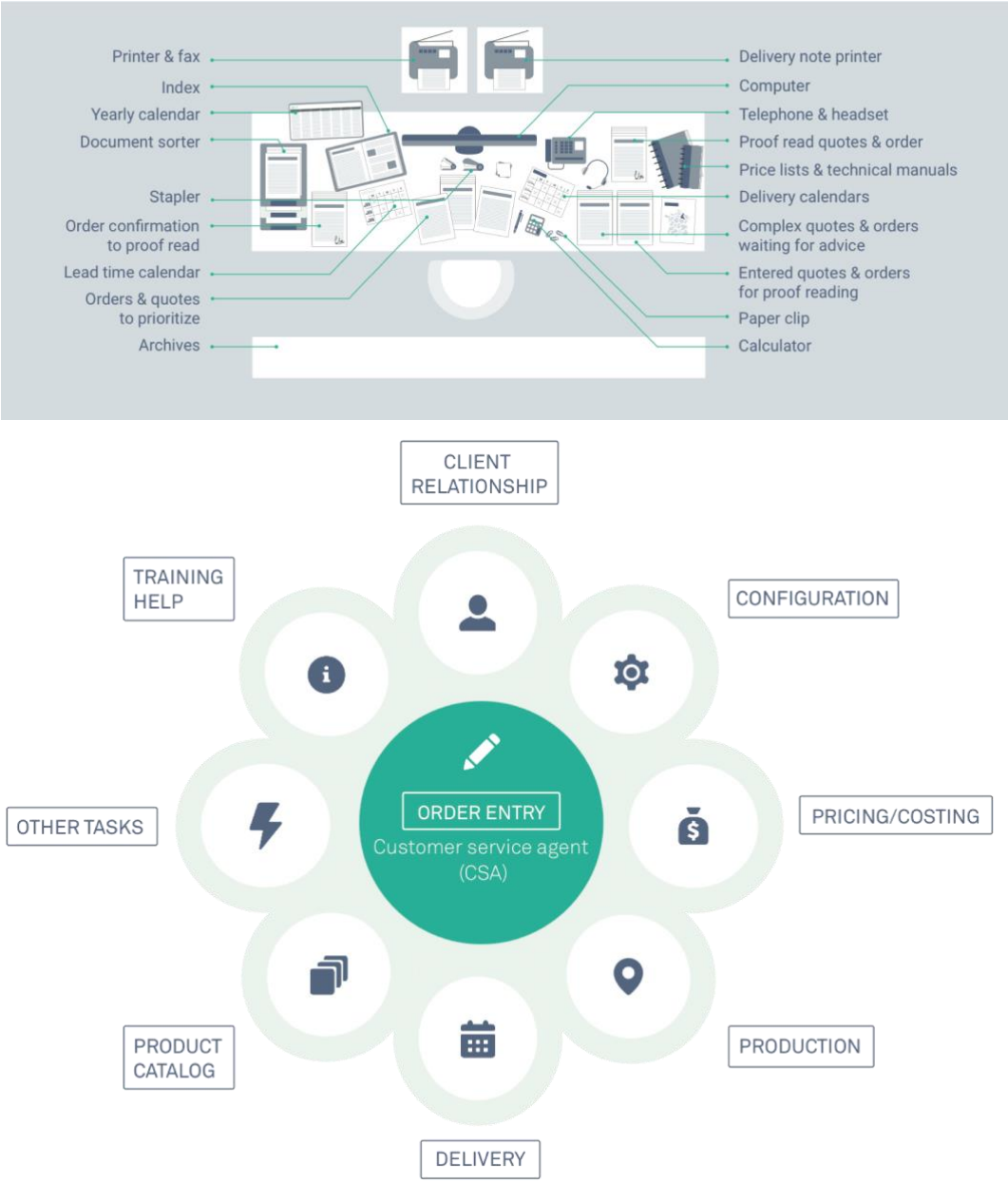

Figure 3. Field work allowed to model high level functional and information architecture, with a clear understanding of agents' roles, process workflows and critical points.

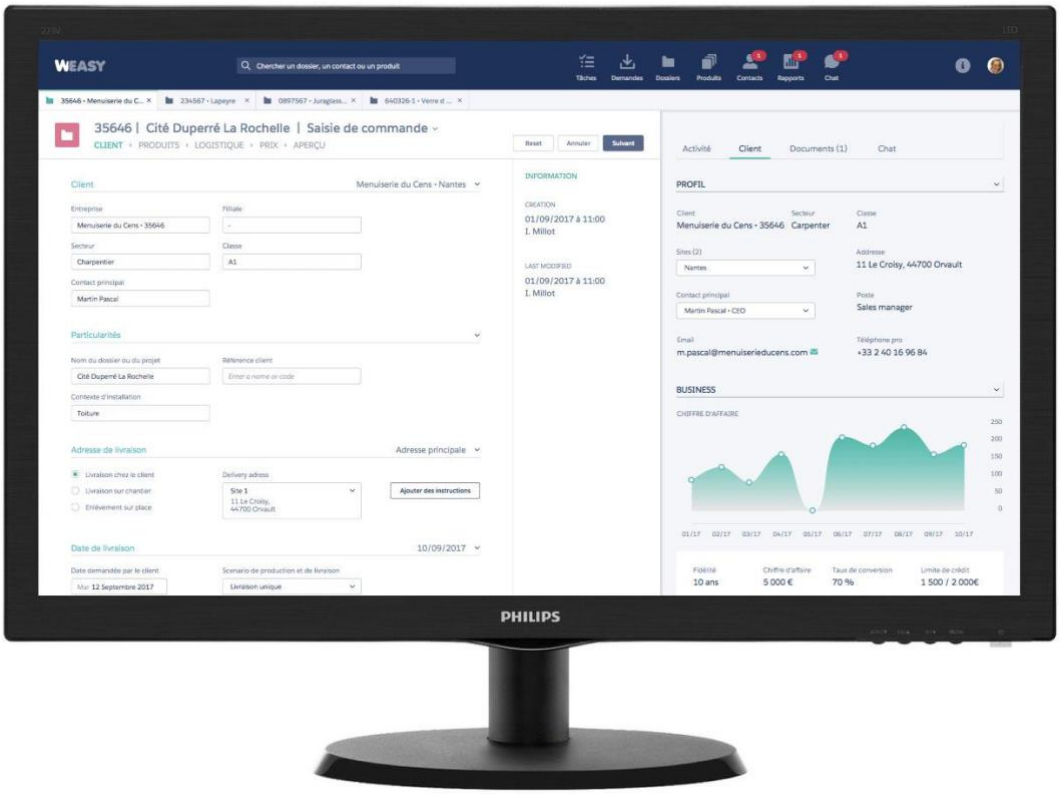

Figure 4. Intuitive layout and operation, plain language, user centred information architecture: a final user testing phase endorsed the design principles defined by Attoma for the Weasy user interface.