

Case Design Sheet



1. CASE DESCRIPTION

TITLE: Automation of production processes for individual (retail) orders and specification

PARTNER
BOC

LOCATION
Poland

TIME/DURATION
2016-now

2. DIGITAL TRANSFORMATION CHALLENGE

2.1. BUSINESS TRANSFORMATION

One of the strongest sectors of Polish economy is furniture production. While this sector is strong and steadily increases export many companies are still using traditional approaches to production with strong focus on offering low cost products.

Company B decided to focus on the high-end of the market, which in turn required much higher level of adaptations for the furniture design in comparison with mass production of low-cost furniture. Additionally, in order to enhance the positive image of the company they decided to focus on reducing waste in production.

2.2. CONCEPTUAL TRANSFORMATION

Company B had to master new way of production – mass customization. This way they can produce furniture very fast in comparison with manual preparations of custom furniture, while benefiting from lower costs due to automation.

Important aspect of conceptual transformation was deciding which steps still need to be performed by experienced employees and which can be done fully automatically. Additionally move towards new way of production allowed also to evaluate possibilities of more eco-friendly production in aspects such as recycling, reducing waste (for example cutting only as much material as it is needed).

2.2. TECHNICAL TRANSFORMATION

In order to use full potential of the new technologies Company B decided to build a new factory created with automation in mind. New equipment supports all stages of production, quality testing (by using e.g. scanning), packaging etc.

This new factory is fully managed by ERP and PLM systems.

3. SOLUTION

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Company B selected one of the leading companies offering technology solutions for the furniture industry. They helped prepare new factory for automated production.

Employees are being constantly trained to make full use of the new possibilities – both on technical level and taking into account new capabilities which offer new market segments and opportunities for the company. This element is also supported by Design Thinking method.

4. KEY SKILLS AND COMPETENCES

- Design Thinking
- CAD/PLM

5. RESULTS

Company B dramatically reduced time needed for producing custom furniture as well as costs. Automation also helps them cope with lack of employees on the job market.

This also helped them move more upmarket and increase profits (by entering new markets with higher expectations, but also offering premium products linked with services).

6. CONCLUSIONS AND RECOMMENDATIONS

- Using Industry 4.0 concepts proved to be very beneficial for Company B
- Apart from focusing on costs and time reduction it is important to also look at the new possibilities allowed by automation

7. REFERENCES

Read also:

- <https://furniture.trade.gov.pl/en/polish-furniture-sector/264407,polish-furniture-an-export-hit.html>

8. APPENDICES

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