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A GLOBAL HR TRANSFORMATION

How a Leading Company Leveraged the Innovative Power of IT

This article reveals the unexpected potential of a global player's HR transformation. It presents the corporation's challenges and benefits of IT-driven business process innovations.

by Theresa Schmiedel, Jan vom Brocke, Axel Uhl, and Stefanie Zeitz

In the year 2000, the consumer goods company Alpha (the name of the company has been changed for reasons of anonymity) took a decision of significant impact. Aiming at globally harmonized processes and standardized data, the corporation launched a global process of business transformation called GIGA (name changed). The sheer size and complexity of a corporation employing around 50,000 people in almost every country in the world was the main challenge for this transformation. In fact, GIGA was Alpha's most ambitious reengineering program. At its core, an integrated SAP system was introduced at Alpha as one standardized business solution. Being one of the largest projects a multinational company has ever attempted, GIGA affected almost all functions of the Alpha corporation, such as finance, supply chain, generating demand, and human resources.

In this article, we focus on the challenges of the IT-driven business transformation at Alpha Human Resources (HR). Taking a closer look at the HR function, we study an interesting phenomenon: "We almost didn't know what to do with the IT system!" Being one of the first statements we heard exploring the roots of GIGA HR at the Alpha headquarters in September 2009, it refers to the starting point of the

project when the value of the IT-driven transformation was not fully transparent to the HR function. The perception of the GIGA HR system points out to one of the probably most important issues in business transformation: the "value creation". While the value of IT has been discussed extensively in the literature (Carr 2004; McAfee and Brynjolfsson 2008), the actual value of a specific IT system for the business may be difficult to determine. This article aims to examine the GIGA HR project regarding the leverage of the remarkable investment Alpha put into reorganizing global processes and data. We do not intend to quantify the IT value, but rather focus on the transformational power of the GIGA HR solution.

With a lack of value perception in the first place, GIGA HR faced an obviously difficult situation to start from. In this article, we show how Alpha managed the transformation project to achieve sustained success and to gain significant comparative advantages through GIGA HR. With a new vision in place and extensively utilizing IT, Alpha presents a good example to learn about business transformation in practice. First, we describe the initial situation in more detail. We then report on challenges and measures taken to manage the transformation. Finally, we conclude with lessons learned and also

reflect on future evolutions at Alpha inspired by the innovative use of IT in business processes.

The Beginning

The initial purpose of GIGA was to provide a platform that should be used to improve Alpha's business process performance worldwide in order to remain competitive. GIGA HR was started as part of the overall GIGA project and was supposed to deal with the HR transformation in one go along with other functions such as finance and supply chain. Yet, the senior HR business management did not really expect that support functions like HR could highly increase their contribution to Alpha's overall business performance. This was also due to the fact that HR felt more connected to people business than to IT. We can observe a rather typical phenomenon here: Even though the overall GIGA project was about harmonizing processes and standardizing data, GIGA HR was essentially perceived as an IT project by the HR function. One reason for this viewpoint may lie in a missing value perception.

"Wrong birthdates are not as bad as wrong finance data!"

The implementation approach of GIGA HR firstly focused on the backbone of HR (administrative processes like HR master data maintenance, organizational management, payroll including parts of compensation management), even though the strategy blueprint for HR intended to move HR from an administrative to a more consultative role within the company. Thus, GIGA HR's business benefits, especially for the consultative business, could not be immediately realized and were not obvious right away, and so in the beginning the acceptance of GIGA was low. Therefore, it was difficult for the HR management to support the change at that time. Both from

a technological and from a cultural point of view, the implementation and development of the IT system in HR were special compared to other functions. "Imagine a supply chain system: if it is down, there are immediate cash problems. You cannot deliver to clients, clients have to wait longer, they buy less, and you have less income (...). If you look at the HR system, it doesn't really matter. You can very well shut off the system for a whole week." Based on the special situation of GIGA HR at the beginning of the project, Alpha faced a number of challenges regarding the HR transformation. The following examples may give a first impression: With the value proposition of the HR project remaining blurry, the strategic alignment of business and IT turned out to be an important issue. A transformation of such size required special skills, particularly in bridging business and IT. On the one hand, the integration of the overall IT system needed to be ensured. On the other hand, finding a solution to the problem of harmonizing processes and standardizing data required profound business knowledge. Benchmarking was the method Alpha adapted. Alpha started to design generic business processes in order to determine the best practices within the company. This turned out to be tricky - considering the decentralized structure of Alpha - and posed a further difficulty, taking into account the governance of the project. Coming along with the decentralized organization of the corporation, further challenges lay in Alpha's culture, which was very marketfocused. People in the different markets were not used to think in global terms. In order to analyze Alpha's GIGA HR case in more detail, we structure the various challenges focusing on different areas relevant for business transformation. Drawing from studies on Business Process Management (de Bruin and Rosemann 2007; Rosemann and vom Brocke 2010), we analyze the transformation regarding (1) strategic alignment, (2) governance, (3) methods, (4) IT, (5) skills, and (6) culture.

The Transformation

GIGA HR resulted in a fundamental change of the HR function. Traditionally, HR was organized independently in the markets around the world - with GIGA HR, one large global system was implemented enabling harmonized processes and standardized data. Looking at the different challenges of the project, the core of the organizational change and most visible part of the transformation, IT, remained a central but only one out of many areas in which Alpha had to face difficulties. The huge impact the global IT system had on the corporation's transformation becomes obvious when taking a closer look at how Alpha dealt with the different challenges.

(1) Strategic Alignment

Aligning strategic HR business goals with the new IT system was a first fundamental challenge for the GIGA HR project. Initially, the strategic direction of HR was rather implicit in the function's action, and only a blurry idea of the benefits from the new IT system existed. For these reasons, it was difficult for the IT function to demonstrate how GIGA would support strategic HR goals. Particular goals for GIGA HR, such as the implementation of a payroll system, were initially defined by the responsible IT people. For the IT function it became more and more important to identify the business needs and priorities in order to deliver a proposal on how to support the HR business. "If the way we address human capital management and the way we want to support this with an HR IT system are not completely mirrored, the HR organization will not be interested in the technology." To ease the alignment of business and IT throughout the GIGA project. Alpha established the so called Center of Excellence (CoE) (name changed). CoE can be seen as a competence center giving direction for HR IT subjects. At the beginning, it was organizationally allocated to GIGA. Only later, CoE was reassigned to the business function. This organizational change generated more ownership for

the HR function regarding the developed best practices and also assured the continuous improvement of these best practices directly out of the function. With the development of an HR roadmap, the HR function proactively defined its priorities that had, until then, only been immanent in the actions of senior management.

"We conducted workshops with HR directors as soon as we had developed the template in order to validate it."

GIGA HR strongly facilitated HR's new vision and structure. Supporting the transformation from an administrational business towards a consultative business, this new vision and structure included the introduction of employee self services and Shared Service Centers (SSC). These allow HR to focus on its value-adding roles as business partner and expertise center. The SSC project started with the setup of a new Global Alpha Shared Business Services organization (GASBS). It covered mainly payroll and HR master data maintenance. Despite the fact that GASBS would have never been possible without GIGA HR, a significant amount of administrative tasks remained local due to the complexity of cross country collaboration. Similar projects were realized in regional SSCs around the globe, such as in Latin America and Asia/Pacific.

(2) Governance

A transformation of the size and complexity of Alpha's GIGA HR project requires special attention to governance. Alpha's decentralized structure was challenging for the project due to the local organization of the markets and their differing maturity level. Since the local organization of different markets and different companies in different countries had to be managed, it was impossible to control the transformation with only one global

hub in the headquarters. Alpha, thus, established three GIGA Centers worldwide for bunding several markets during the project. For these organizational units people were recruited from companies of different countries including SAP-experienced people, who were in charge of the implementation of the system. The CoE staff in the GIGA Centers were responsible for the definition of the processes.

"Follow the best internal process within Alpha!"

Apart from the centers, a GIGA Steering Committee coordinated the project execution. The organizational structure Alpha created in order to manage GIGA was very supportive to the huge global project. However, the different levels of maturity of the single Alpha markets were a special challenge. "For the UK, our solution was a step backwards. An SAP HR system already existed in the market and had received much in-house development. (...) Canada, on the other hand, was not developed as much in the area of HR IT and, thus, improved a lot regarding the information that can now be provided." That means that some markets, as the UK, were very advanced in their process-oriented thinking and had long implemented IT tools serving different purposes of the HR function as opposed to other markets. It turned out to be difficult for Alpha to keep all markets happy to the same extent, aiming at an equal implementation of GIGA worldwide. For example, advanced markets are ready for "getting amazing data" from Business Warehouse reports. Their business requirements have increased and need to be prioritized because of budget constraints. They are eager to see the enormous impact GIGA can actually have on their business. Since it was difficult to create processes that fit the level of maturity of all markets, Alpha developed a template solution, i.e. a set of predefined

functionalities that could flexibly be enhanced with country specific additions. "What we decided to do is to have a set of non-negotiables and say, 'As long as you are meeting those requirements you have sufficient flexibility to take it even further, but these are the minimum requirements we will expect you to apply.' Pakistan will say, 'Fine, we can do that!' and the US will say, 'Well, we did this 10 years ago! We are now here!' and that is fine." By establishing this common basis for the overall corporation, Alpha is able to build on a solid foundation in the future.

(3) Methods

Regarding the management of the transformation, Alpha's approach towards harmonizing HR processes and standardizing data was based on a global benchmarking initiative that was launched to find the best HR solutions within the corporation. International project teams were in charge of determining best practices. At the beginning of the GIGA project, best practices were defined in workshops of business representatives. This was an ambitious task because it meant brining together "60 countries (...) and you have to walk out of a three days meeting (...) with one common way of how to hire a person." The definition of best practice processes required many agreements. "If you're looking at hiring: Who is going to do the first steps of recruitment? Is it going to be the manager or is it going to be HR? (...) Who is going to interview the person? (...) What kind of data do you need for hiring? (...) Who does the data entry?" Finally, what was the one ideal solution how to hire a person at Alpha? By posing questions like these, uniform processes were designed for all companies. Based on the international comparison of Alpha HR practices, Alpha developed an increasingly deep understanding of the meaning that benchmarking internal HR processes had for the overall corporation. Yet, finding global solutions was not always as simple as it may sound.

There were many local specifications that needed to be considered. "There are also areas, however, that cannot be standardized that much in a global environment, because you have different legal requirements (...) and you have specific ways of doing things in different countries. In Latin America, if you publish a recruitment request, sometimes they get 10,000 replies (... whereas here) you may have 10. You need a different tool, you need a different approach, and you may actually need different publishing tools." Against this background, it was challenging to find best practices while keeping in mind all the differences. In order to address this, Alpha developed generic processes allowing for both, safeguarding a global standard and facilitating local adaptations at the same time.

(4) IT

IT served as the enabler of the huge transformation project. From the very beginning, the new IT system was intended to support the HR business in general and the needs of the corporate users in particular. In the early stages, Alpha focused more on providing the right functionality and less on usability. But as the users struggled with the initial user interfaces, Alpha had to change its implementation strategy: having a system that is easy to use is as important as the overall functionality. Another top priority was the concept of data standardization. The system was required to include an efficient data structure, which means that the right type of data is available to the user. Alpha, thus, considered essential principles of the well-known Technology Acceptance Model, i.e. (a) ease of use and (b) perceived usefulness (Davis 1989). Furthermore, the one-vendor approach for IT was not followed anymore. For certain areas, Alpha decided to integrate a few global solutions into their global SAP HR system, sacrificing "integration for simplicity". This resulted in a global hybrid HR system which integrates several solutions. However, Alpha mostly uses SAP solutions and also builds on

SAP as data warehouse. The decision for a multi-vendor approach was encouraged when customizing an IT solution for succession planning turned out to be more complex than expected. Additionally, the perceptions of the HR and the IT functions differed fundamentally regarding ease of use and the usefulness of the system. Finally, Alpha decided to define value from the perspective of the client (HR) and less from the perspective of the IT function. This seemed to be the right approach: today's hybrid solution affords less customizing in certain areas and the integration of the GIGA system was easier than expected.

(5) Skills

GIGA HR required special skills in many ways. First of all, interdisciplinary skills were necessary for the transformation. Since CoE was established as a function to ensure the alignment of business and IT in the project, people had to be recruited for this specific task.

"You look for HR people who can 'talk technology' to drive HR technology projects."

It was difficult though to find people for CoE. Among the HR personnel a rather general phenomenon occurred: IT was perceived as an unpopular domain and the HR people were therefore not eager to work for 'an IT project'. Today, the HR function is very well aware that CoE is a key position for change in the organization. According to the nature of the CoE, it neither clearly belongs to business nor to IT. "We realized that two types of people were required: HR people who were not afraid of technology and were able to deliver within a technology project. And IT people that understood enough of HR processes so that they could consult their HR counterparts in how to utilize the technology." Thus, Alpha created specific job

profiles for CoE for which people were trained in both areas. Fostering double skills of the CoE employees, Alpha eased the communication flow between the two areas. Another important skill that was required through GIGA HR is process orientation. The traditional HR scope was very administrative. Therefore, people responsible for administrative tasks "usually have problems in thinking in terms of processes. They think in terms of isolated activities." Changing employee's thinking from focusing on one task to focusing on a whole process was a process itself and took much time and effort. Alpha's approach lay in forming international project teams. Working together in one place, the team members developed a common understanding of the Alpha HR processes. HR employees who have been working on global projects, for example to define a best practice solution for a specific process, acted as change agents once they were back working locally. Through these agents from all over the world, Alpha's global thinking was passed on to the local environments. Including process thinking skills into the local functions was an effective measure to slowly but steadily turn away from administrative business and rather approach consultative business. Finally, another dramatic change CoE has introduced was the delivery of specialized project management methodologies and skills to Alpha HR. Today CoE is the recognized project management provider delivering services to both system and non-system related matters.

"The hardest part is from brain to heart. That is sometimes the longest journey!"

(6) Culture

Culture turned out to be one of the major pillars of transformation. At first glance, the idea of GIGA to have one central way of doing HR business contradicts Alpha's decentralized culture with its very local and market-specific business. "In a Prague office, for example: Who takes care of hiring? A person in Prague." HR is a very local business. The global project, thus, evoked resistance, especially among the HR management in the markets and challenged Alpha's undertaking. The strong support of Alpha's CEO throughout the project and the clear announcement of the transformation goals diminished resistance to change, "Nobody could opt out." Intensive communication helped to decrease the impact of conflicts and improved identification with the GIGA project and the GIGA Centers as new functions in the organizational structure. Thus, the CEO commitment was a key success factor to overcome middle management resistance. The lack of IT affinity by the HR management was resolved only very slowly. Alpha's stamina paid off though. Despite the missing business value proposition at the beginning of GIGA HR, the tremendous potential of the transformation slowly emerged during the course of the project. The HR team is now on its way to change from delivering administrative to consultative services. Thus, GIGA contributed not only to implementing process change but also to implementing a strategic change. These fundamental changes further required a mindset and culture change (vom Brocke and Sinnl 2011). Taking a closer look at Alpha's culture, specific elements of it were very supportive of the GIGA project: the consensus orientation of the corporation helped to overcome the isolated, market-oriented thinking. Being aware that reaching consensus is not always possible, Alpha took a very pragmatic approach discussing issues where necessary and pushing decisions where it was obvious that agreements could not be found. The approach Alpha took was to "select battles". Battling for consensus was avoided in cases where a standardization agreement was obviously not possible due to very specific local requirements. In these cases, Alpha pushed decisions top-down. Acceptance for this procedure may have been high because of another cultural facet: Alpha's long-term orientation. Taking a conservative-steady approach once again turned out to be the right thing to do. In combination with a "keep on going" attitude, it further drove on the transformation.

The Benefit

By 2009, GIGA HR created a strong foundation for the HR business. Around 50% of all HR tasks, such as organizational management as well as payroll and people administration, were already supported by the GIGA IT solution. The system comprises around 10,000 HR users, 20,000 manager self-service users, and 50,000 employee self-service users. Looking at the rollout of GIGA, the start-up phase has been successfully finished with getting all Alpha markets online. "Now we need to be in a different phase (...) of making GIGA deliver the business benefits (...) by improving the processes, applications and the effectiveness of what has been deployed." More and more opportunities for the HR function become obvious through the further development of the IT foundation. Some of the key projects that build on this foundation are talent management, succession planning, learning management, and e-forms. GIGA HR is putting Alpha far ahead in terms of synergies, and today Alpha has started to exploit GIGA HR's huge potential.

GIGA HR has not only enabled the internal transformation of the HR business but also increased external competitiveness. Using the same terminology in the HR processes worldwide, GIGA HR increased the comparability of the data and their analysis. "There is one Alpha! (...) When I want to know how many marketing people across all of the divisions are under 30, what their performance rating is, (...) whether they are male or female... if I asked for that across Alpha, this would be hard work, a big project. (...) Let's just push a button on this!" Al-

pha is on its way to making IT matter extensively through the harmonization of its processes and the standardization of its data. So far, globally, only Key Performance Indicators (KPIs) like headcount and turnover reports have been possible. GIGA HR now allows for different KPIs, providing answers to more fascinating questions, such as "Have employees in the talent management pool left the organization and for what reason?" There is tremendous potential for Alpha HR to be raised on the basis of the global system. In the following, we analyze the main potentials of GIGA HR according to the six dimensions introduced above.

Key Learnings

In General:

- ▶ Clarify the roles of business and IT.
- ▶ Create an organizational structure that supports the transformation.
- Benchmark internal processes (as you do with external processes).
- Match business requirements with IT system capabilities.
- ▶ Build up international teams for a global project.
- ▶ Achieve strong CEO support and communicate properly.

For the HR Function:

- Conduct a business benefit analysis on the basis of the functional strategy.
- Identify functional project managers.
- Define business processes including a market perspective.
- Embrace technology at the right moment.
- Find HR people who can "talk technology".
- Support a mindset change through project management.

For the IT Function:

- ▶ Understand the business needs and deliver simple proposals.
- Define minimum requirements for the implementation of a global system.
- Find the right balance between standardization and flexibility.
- ▶ Balance ease of use and usefulness of a system.
- ▶ Make sure people in the functions understand the language you are using.
- ▶ Reach consensus where possible.

(1) Strategic Alignment

The strategic alignment of different functions, businesses, and markets will be facilitated through GIGA HR. The system allows for joint initiatives and collaboration ranging from recruitment and talent management to common training. Many synergies can be created on the basis of the GIGA HR system. GIGA HR will simplify the execution of performance reviews and support the management of strategic Alpha goals.

(2) Governance

Up-to-date global information will be available for decision making. Organizational decisions, such as outsourcing or bargaining with unions, will be supported and as a result be more effective, because a direct comparison of different markets will be possible. Furthermore, the acquisition of new companies will be easier since harmonized processes already exist.

(3) Methods

HR administrational self-services for employees, e.g. through online-forms, will ease the management of HR processes and disburden the administrational HR body. Furthermore, the comparison of global data will allow for a continuous improvement of internal processes.

(4) IT

GIGA HR incorporates an IT system that is based on the latest technology. Alpha can now use a business warehouse instead of Excel spreadsheets. Thus, the availability of global data will rise significantly through GIGA HR. Reliable up-to-date data will be available at the touch of a button, thereby having a huge impact on sustaining operational efficiencies, for example global reporting or planning and controlling of HR processes.

(5) Skills

Regarding the skills and knowledge of people, the potential of the new HR system is manifold. It provides the opportunity to find top employees through a Talent Management System. Succession Planning will further improve the allocation of skills in the corporation. Global Job Posting will allow worldwide mobility of employees. E-learning and global training will increase skills. All in all, Alpha will be able to extensively profit from economies of scale.

(6) Culture

GIGA HR has a tremendous impact on Alpha's culture. The involvement of HR people in defining global best-practice solutions for HR enhances process-oriented thinking in the function. Combined with the common language that has been created through GIGA HR, the project facilitates one Alpha which in turn will ease leveraging the potential of GIGA HR.

Alpha's GIGA HR project provides some general implications for similar transformation projects of such scope. We differentiate between general, HR-related and IT-related implications and identify in each case six recommendations according to the six areas relevant for business transformation. Please see the Key Learnings box.

Conclusion

The example of GIGA HR shows how to successfully build the foundation for a huge transformation process. It shows that the implementation of IT does not necessarily create value directly, but it enables processes which then generate value. GIGA has facilitated Payroll and HR administrative processes, data standardization, and HR Shared Services. It is a unique kernel for managing organizational data, enabling of global reporting and is a solid platform for value added processes, e.g., Talent Management or Compensation Management. Over years, Alpha invested in implementing the core system worldwide. Today, the starting point of "We almost didn't know what to do with the IT system!" is history. "Ironically, the new IT system finally made Alpha acting as one!".

Service

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BIBLIOGRAPHY

- ▶ Carr, N.G. (Ed.) (2004). Does IT Matter? Information Technology and the Corrosion of Competitive Advantage. Boston: Harvard Business School Press.
- b de Bruin, T., Rosemann, M. (2007). Using the Delphi technique to identify BPM capability areas. In Proceedings of the 18th Australasian Conference on Information Systems (ACIS 2007), Toowoomba. Australia.
- ▶ Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-339.
- ▶ McAfee, A., Brynjolfsson, E. (2008). Investing in the IT That Makes a Competitive Difference. Harvard Business Review, 87 (7/8), 98-107.
- ▶ Rosemann, M., vom Brocke, J. (2010). The six core elements of business process management. In: Rosemann, M., vom Brocke, J. (Eds.), Handbook on business process management. Introduction, methods and information systems (Vol. 1, pp. 109-124). Berlin: Springer.
- ▶ vom Brocke, J., Sinnl, T. (2011). Culture in business process management: A literature review. Business Process Management Journal, 17(2), 357-377.





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