

# Product Trainings – Success Factor in Industry

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***Overall qualification of the workforce has a significant impact on success of an enterprise and its potential innovation power. KnowHow and abilities of staff as well as the willingness for further development is the basis for all change processes, technical innovation and implementation of new technology on the market. Those having also to be coordinated by appropriate software support.***

The laboratory for tools and production science of RWTH Aachen estimates the automation rate of the German production industry at an average of 79%. Conclusions concerning maintenance, availability and resource planning can be drawn easily. High competitive pressure enforces strategies in differentiation in competition. The leverage for this is not mainly product design, special functionalities and applications, but increasingly the service and support.

This includes support of installations, updates and service level agreements, but also customer support in national and international sales- and service locations. All these product trainings are the basis to enhance the familiarity with the product in question.

Employees, especially sales and service partners are multiplier of enterprise success. Trainings in manifold areas such as compliance, security issues are not only following legal obligations, but are also necessary to control sustainable development in corporations. Companies require clear and logical concepts to develop the knowledge of experts, keep this knowledge in the corporation long-term and make this knowledge available to the right staff members.

Infrastructure for comprehensible and reproducible training management must be supported by suitable IT, especially a professional Learning Management System (LMS) and training concept. This fact and the practicability of an IT-Solution is regarded as being highly significant for training management. Still there is a huge potential for improvement. 40% of all applicants for the German Education Award (Deutscher Bildungspreis) claim to have appropriate software. Closer research showed that these solutions were not sufficient after

all. Only 16.9 % declared that they were operating a software to track competences and qualifications of their staff. The low numbers of suitable IT-support (37%) indicate that the great potential, of professional IT-tools in training management has not been sufficiently recognized yet.

## **Product Training in Service and Maintenance**

Sustainability, also in maintenance is usually regarded from the perspectives of technics, economy, ecology as well as from a social point of view. To bring any of these angles to life is unthinkable without the human as a carrier of knowledge. Sustainable increase of efficiency can be achieved by improving the quality in availability management of machines and installations. More efficient employment of resources leads to a decrease of costs for energy- and raw materials.

Maintenance specialists are predominantly working with service level agreements. Vendors of installations and service providers who would like to improve maintenance settings must specifically built on the Know-How of their staff and cultivate this with the aid of special further education, without causing shortages in service. It has been stated, that the largest expertise is mainly within the minds of the service staff and less in paper format.

On the show 'Maintain' which was held in 2007 in Munich Professor Dr. Kalaitzis was already stating where sustainable maintenance concepts differ from the traditional cost-cutting approaches. To increase efficiency within the maintenance processes it is imperative to transform the enterprise into a learning organization.

It is not a secret, that controlled maintenance-cycles and sophisticated available management lead to decreased downtimes. Availability is supported by up-to-date Knowledge of staff. When the availability and quality of knowledge is unknown or concentrated to a few people, a permanent quality level cannot be guaranteed. Even the best technical staff cannot be sufficiently prepared to manage complex installations' updates or release changes without special training. The more technology develops towards Industry 4.0 the more critical up-to-date maintenance KnowHow is required for the entrepreneurial success. Whilst in 2003 only 40 percent of all enterprises and 54 percent of DAX corporations found sustainability an important issue. In 2011 more than 2/3 and more than 90% of all DAX corporations pronounced sustainability as a highly relevant

factor for the future development of their enterprise. Comparisons between the Dow Jones Sustainability Index, a share index indicating the 10 percent of all enterprises which fulfill the specified sustainability criteria and the leading share index MSCI (Morgan Stanley Capital International), founding on 1900 stock prices shows that economic and ethic actions can be connected as both indexes show a similar development. Sustainable management is lucrative which is shown by empiric studies of Professor Dr. Uwe Hannig and Philipp Tachkov.

## **Product Training in Sales**

Transaction costs include the complete effort required to enable an exchange of goods. Transaction cost theory states that it is impossible to finalize negotiations in one go. As a rule contracts are continually renegotiated and readjusted. This is particularly true for complex industrial goods such as software. To limit the costs and risks of all parties the existing, proofed and assumed knowledge of the product is significant. Indicating sustainable product training is therefore not only mandatory for the initial negotiations and sales presentation but also the transfer of knowledge from producer, sales and service staff to the customer must not be spared. This is mandatory as the customer lifecycle expands with perceived quality of service and communication; that is from first contact from initial installation through service updates parallel to customer communication along the process of fulfilment.

Higher customer satisfaction increases and facilitates reselling, up- and cross-selling. Increased knowledge concerning particular customer requirements can only be detected by continually employing up-to-date service staff, likewise increasing the customer value due to the fact that the effort for new projects decreases. At the same time less of the enterprises resources are required to differentiate from competitors. The longer the customer-provider relationship lasts the lower transaction costs are as a result of communication at eye level.

Regular product trainings of internal and external sales and service staff strengthen the brand not only by perfect technical knowhow but also the brand is considered trustworthy and of quality. This feeling of low risk and trust is transferred nonverbally during contact with prospective customers and therefore underpins the service to be expected concerning competence and customer orientation which are both significant points of differences in

competition. Transaction cost analysis suggest that lacking or incomplete training causes uncertainty also in respect of maintenance of machinery and equipment, but also of the knowledge and competence of the technical sales force. The results are higher cost for sales transferred equally for prospective customers and vendors.

## **Consumer acceptance and Insecurity of Enterprises**

There is sufficient proof and it is logical, that a successful introduction of products depends on the evaluation of the obvious advantages of a product in connection with its cost and in relation to the relative advantages of a competitor's product. To sell complex products and innovations without being familiar with them, it's usually the case that the potential for future development is in fact also a mental and emotional problem, not only for sales and service but also for a prospective customer; trust lost due to lack of competence or product knowledge can hardly be regained by investments in advertising and PR. Checking back with details especially for technical specifications are inevitable to smooth out uncertainty.

As an example for complexity of purchasing on one side and resulting sales tasks for investment goods it's better to carry out a survey concerning uncertainties during a software procurement process can be employed.

After uncertainty concerning software quality and changes of company structure due to new software the qualification of users and administrators ranks third. This finding can be easily transferred to investments in engineering and construction, service robotic and other sectors. "Before implementing new products, technologies or procedures staff have to be prepared thoroughly. Employees have to be trained to deal with new complex systems and innovations to deliver best performances and services based on new processes themselves."

To cope with new tasks or equipment, and to reduce or eliminate mentioned uncertainties as described previously, sales, support and service staff have to be trained extremely well. The service offering containing respective training programmes for users and administrators is therefore an important part of the service portfolio and mandatory point of difference in competition.

Sending a whole group of experts of different professional backgrounds for initial negotiations demonstrates a high level of the vendor's expertise, but at the same time

illustrates complexity and potentially the high maintenance level the plant or unit may require as well as a potential dependency on the knowhow and support the vendor is providing. Rogers has identified complexity as such as an aspect of successful product implementation. The E<sup>3</sup>-Model (expectation ->emotion->evaluation) shows a definite connection between expectations of complexity, resulting uncertainty and finally a rating of the product already at market introduction. The further uncertainty can be reduced by sound product knowledge, the higher the efficiency and thus the profit ratio of the parties involved. Acceptance within the own corporation is mandatory as it serves as the basis of transferring the perceived product- and service quality to the customers mind, and is therefore the minimum basis for increase in market share and turnover.

## **In Touch with Customer and Market**

Providing trainings offer another communication channel between customer and vendor. Trainings, especially questions asked disclose a sincere customer feedback concerning expectations, typical technical problems when bringing a plant into service. Furthermore suggestions and wishes for improvements from technicians, intermediaries and end customers. The respective knowhow is definitely influencing the operating time between failures, total service cycle and availability management including maintenance cycles. The pure installation of plants, machinery or implementation of software as such is usually not a satisfactory start for flawless operation and maintenance. Obviously well trained staff is enabling the corporation to be productive earlier. This way cost during the implementation will be minimized and a return on investment can be generated faster.

It is not without reason that complex machinery comes with a variety of service contracts. Still thoroughly constructed training programmes for operators are mandatory to guarantee maintenance during shifts and enabling repairs of minor incidents. Trainings to avoid user mistakes also apply for changes of release and modules or changes in the location. User failures are critical as they have a high impact on customer satisfaction. Repurchases and replacements, service contracts as well as the possibility of happy customers serving as positive references are influencing the development politics of a vendor to a high extend. Each order means a serious, partly also a sine-qua-non investment decision. Maintenance and services including trainings will therefore always be integrated in investment decisions. Incomplete knowledge transfer resulting in unsatisfactory

maintenance cycles, early recognition of problems and danger as well as safety precautions can also be legally enforced. Thus training contents as well as training quality must be ensured and proofed by appropriate tools and certified to meet legal, contractual and insurance requirements. Trainings at all levels must be integrated properly in the business strategy and are therefore especially relevant for sustainable customer relations. Hands-on training concepts are only efficient if the infrastructure as in software, processes and company culture supports them accordingly. Similar to supply-chain-management structures web based LMS and training administration software can deliver solutions for cross-company knowledge solutions. Transparency and information transfer as well as quality and efficiency of trainings processes circle round an integrated partner management.

Protected learning platforms offer individual possibilities to the relevant target groups such as trainers, staff, HR and managers) to share advantages and cost of such a system and increase efficiency at the same moment.

There is no single answer to the question if customers are to contribute in form of training fees, the trainings comes as a part of the service contracts or if single corporations are sharing a percentage of the cost. This is a highly individual decision as this is resulting from the strategic direction of the individual business model. However a Learning Management System must be able to serve all the respective requirements. Customer value analysis can inspire different solutions for different partners, no matter if those operate complex plants in solution management, software or service robotic.

## **Corporate Learning with Structure**

Learning Management Systems (LMSs) today manage knowhow-transfer cross time and location. Sustainable product trainings achieve not only knowledge and competency. Independent from the product life cycle they support in long term customer relationships. Therefore an efficient organisation of training management is the basis of short and long term success of a company not only during later maintenance but already during acquisition and implementation. The basis to achieve this is offered by a proven and tested training administration software. Not only support of academies and HR-development concerning training organization as such is essential. As tasks and involved roles in training

organizations manifold a suitable LMS offering services to all parties is seen as a major quality characteristic for customers and partners.

The transparent enablement of participants from your own sales and service department or your partner's staff to choose and enrol online in suitable courses as well as the integration of individual reporting and approval structures are key issues to a close cooperation across companies or business units.

Due to the fact that training programmes developed over the course of time consist of various components (e.g. classroom training, course chains, WBTs, Chats, Assessments, video lectures or virtual classrooms) an LMS nowadays must bear an integrated approach. Participants and users must be able to make fast forward choices in their operation paths without restricting them or forcing them to logon several times to several systems. Still they must be able to keep track of processes and continue seamlessly even if on demand tasks divert their attention. Planning of trainings and concepts ahead of time is often mandatory e.g. for budgeting reasons but at the same moment reality enforces alterations and spontaneous rescheduling. Integrated training management software grants not only functionalities for adaption of changes but keeps participants, trainers and managers informed and up-to-date.

Open enrolment-concepts allow students to choose elements of their personal training catalogue, their career path or their mandatory training repository. WBTs can be accessed, tests can be sat and certificates downloaded. Integrated training software administration tracks the actual status and offers new advanced courses suiting profession and proficiency level. Typically for LMSs in industry are highly efficient training administration software combined with training portals giving access to individual learning platforms to support acquisition of knowledge.

## **Training Administration Software**

The 'static' administration of training might be operated by an industrial academy or be in charge of the HR or personnel development department. Courses and dates but also career and qualification paths for an individual person e.g. a technician of a subsidiary, staff of a customer or own service and sales force are planned and administered. Learning progress and knowledge acquirement must be tracked, updated and documented with minimal

effort. Training management systems administer a broad variety of training types. Classic classroom training, download of supporting information, web based training entities (WBTs) can be administered as well as date sequences or curricula which are made up of different types of training units (Blended Learning).

Also if knowledge has been acquired certain persons such as shift- or workshop managers must be able to track down fast who in their team has certain qualifications, especially in case of sudden repairs or operations. A high volume of special qualifications must also be continually renewed due to legal or insurance demands. One way is to add time stamps to certified knowledge and configuring the training management system to set off an indication when an update or recertification is due for a particular member of the crew. If different locations or subsidiaries are involved entitled staff such as a branch office manager has to be enabled to draw reports and training histories featuring the knowledge status of their personnel. The required accuracy can only be granted by employing professional training management software. Up-to-date data can be accessed by entitled personnel only. Processes must be configured individually for any corporation. If training cycles are set up accordingly and adjusted to maintenance routines specialized and certified staff will maintain services at customer's plants and profit from trust generated by quality service.

## **Training Portals**

Web based training portals serve as door keepers for different target groups accessing the Learning Management System (LMS) of a vendor. Different types of access enable training operators, students, suppliers, managers and trainers with various functionalities to administer and approve training, supply documents or knowledge, access and book courses and assessments as well as track progress of educational campaigns. Training portals allow for accessing the learning platform or carry out certain administrative tasks within the training administration software.

Depending on their role and rights concepts technicians and service staff can register to different learning units and trigger an approval process involving another party to grant training time and budget by a few mouse clicks. Managers of branch offices or academies can register their staff or customers to the training data base to enable them to qualify for

certain tasks. Web based reporting features inform about training progress and education level.

Personal training accounts offer employees access to course catalogues matching their professional portfolio. They can enrol to courses and tests, view their training history and download certificates.

Questionnaires requiring the participants feedback allows for quality monitoring and improvements. This feedback might be anonymous and can be evaluated by HR or academy.

## **Conclusion**

Structured knowhow-transfer is a mandatory prerequisite for successful implementation of processes and concepts of all kind, independent if sales force or maintenance crew are involved. Denominations such as sustainability, knowledge and learning are inseparable as changes in ways such as new maintenance or communication processes, new technologies etc. can only be employed and exploited by adopting series of cognitive and practical activities. Trainings are also a platform for introducing new products or for testing interest and reactions of business partners under controlled circumstances. Trainings can expand the customer life cycle, initiate repurchases and acquisition of further products and services.

To increase and monitor quality and thus maintain brand value by intensification of product knowledge and therefore increased identification of customers and own staff likewise. Especially trainings for external service staff and sales force do not only serve as knowhow- and information transfer but are also essential motivational tools. The acceptance of new products not only increases turnover. The continuous contact with decreases the fluctuation of a highly qualified workforce.

## **About us**

Since 1998 SoftDeCC Software GmbH develops TCmanager, a professional training administration software. TCmanager has been developed in continuous cooperation with our partners (Siemens, UniCreditBank, TAE...). This way a broad spectrum of hands-on

functionalities is provided. We will be happy to present TCmanager free of charge in an online presentation.

**Contact us or check out our website [www.softdecc.com](http://www.softdecc.com) for further reference:.**

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