LÜNENDONK

Lünendonk® Survey 2016

Master Data Revival

Is inadequate data quality hampering digital transformation?

A Lünendonk Survey
with specialist support from

KPS



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FOREWORD

Inadequate master data quality: Is the digital revolution lacking a vital foundation?

Mario Zillmann
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Does master data pose a problem for companies? There is master data on products and articles, on finances, on customers, and on suppliers. In fact, you could say this data is the informational basis of every company. Ideally, master data is robust, reliable, and up-to-date.

But is that actually the case? And if not, does this not call into question companies' digital transformation as a whole, as well as the entire development toward Industry 4.0, Logistics 4.0, the Internet of Things, and other digital business models? Reason enough for Lünendonk, with specialist support from KPS to shed more light on the master data situation at 155 German companies from the manufacturing, retail, and other industries.

You would think that after all the years of hard work, the problem of master data management would now be resolved. After all, companies have been investing in software solutions designed to optimize their master data management for years.

But while high investment in these technologies was necessary, it would seem companies have neglected to change their structures and processes to enable effective master data management. After all, a tool is only as good as the person using it. Consequently, the actual situation differs dramatically from the ideal. Only about one in seven companies (15%) believes that the problem of master data has been resolved. A massive 85 percent continue to grapple with the issue. In view of the upcoming digitization of production companies, retail, the financial sector, and other industries, this is a catastrophic result. Against this backdrop, what is Industry 4.0 supposed to build on?

Where exactly do the weaknesses lie? Are there differences between industries? Are large companies better placed than small ones? Do the B2C and B2B customer groups play a role? These are the kind of essential questions we zoom in on in this master data survey.

Let's start with a result that is certainly controversial: When companies rate themselves as good or as bad master data managers, their other responses should consistently reflect this assessment. "Good" managers of master data should be satisfied with the quality of their data and the results it delivers.

But what we find is the following: Around 30 percent (29%) of those companies that rate themselves as relatively bad at master data management, believe the

issue of master data to be resolved. By contrast, a mere 12 percent of respondents who rate themselves as good master data managers consider this to be the case at their companies. Could it be that some managers have an excessively optimistic view of the situation?

And here is another startling result: There is a similar, albeit less marked, discrepancy between the points of view of specialist departments and IT managers. Almost 20 of the IT specialists (19%) consider the problem of master data to be resolved. By contrast, only 12 percent of the user departments share this view. However, the latter are generally the people who have to work with the data. And as IT specialists like to put it: "Garbage in, garbage out."

It is hard to know just what to make of this. But perhaps we simply need to take a closer, more careful look if we want to better understand some problems in master data management.

The larger the company – and we divided the participating companies into three size categories – the greater the number of respondents who judge the problem of master data to be unresolved: Four fifths of small companies (80%) and an overwhelming 89 percent of large ones consider the problem of master data to be unresolved.

The closer the companies are to consumers, the greater the pain caused by the problem. To understand this a little better, we decided, when distinguishing end customer groups, to polarize our consideration of the companies operating predominantly in the B2C or B2B segment – excluding survey participants who operate equally in both segments. Even if only 10 of our participants can be described as pure B2C players, this approach enables us to focus firmly on the extremes to bring out the differences more clearly. Not one (0%) of the ten companies operating predominantly in the B2C segment believes the problem of master data to be resolved. But of the 60 companies operating predominantly in the B2B segment, a mere 15 percent consider the problem to be resolved.

So, what exactly is the problem of master data? The evaluations of our questions presented below provide some interesting pointers.

I hope you will find this survey useful.

Mario Zillmann
Lünendonk GmbH

LÜNENDONK

Current situation and impact of master data management

SELF-ASSESSMENT OF MASTER DATA MANAGERS: MANY LEADERS – FEW FOLLOWERS

Just under two thirds (63%) of 151 respondents consider their position to be "good" or "very good" from a digital or IT point of view. The others tend to see themselves in average (36%) or even rate their position as "bad" (1%).

By and large, these self-assessments apply to companies of all sizes (in terms of headcount). Overall, companies in the manufacturing industry rate themselves somewhat higher (63% "good" or "very good") than retail companies (56% "good" or "very good"). The assessments of the managers from user departments and those from IT matches the overall picture in both cases.

MOST COMPANIES CONSIDER THEIR POSITION TO BE GOOD FROM A DIGITAL POINT OF VIEW

Figure 1: Question: How do you rate your company's position from a general digital/IT point of view? Scale from 1 = very bad through 5 = very good; all companies; n = 151
Source: Lünendonk

PREREQUISITE FOR DIGITAL TRANSFORMATION: IS THE ESSENTIAL MASTER DATA FOUNDATION LACKING?

Successful digital transformation hinges on a fulfilling number of fundamental tasks. More specifically, these include modernizing existing IT systems to integrate digital solutions, modernizing or replacing legacy software, managing master data effectively, automating processes, as well as developing data-based business models (see Figure 2: How do you rate your company's position in terms of the following success factors for digital transformation?).

"Automating processes" seems to be well under way: 58 percent of all respondents rate their position here as "very good" or "good," with just over a fifth (22%) of the companies from the manufacturing industry rating their position as very good, compared with only one in nine companies from the retail sector (11%). However, the points of view of managers from IT and the user departments involved diverge considerably when it comes to evaluating the degree of automation. Almost a quarter (24%) of IT managers believe their position to be very good. By contrast, a mere 11 percent of the user departments share this assessment.

Overall, the same applies to "modernizing or replacing legacy software" (57% "good" or "very good") – although here, too, 8 percent rate their position as "bad" – and "modernizing the existing IT systems to integrate digital solutions" (62% "very good" or "good"). The situation is not quite as positive when it comes to "developing data-based business models:" More than half of those surveyed (54%) consider themselves to be merely "average" or even "bad" in this area. Nevertheless, this conversely entails that 46 percent are at an advanced stage in developing such business models. And small companies in particular (14%) rate the development of their data-based business models as very good (by comparison, only 5% of large companies share this view).

If the evaluation of these success factors seems fairly evenly balanced so far, master data management fares considerably worse. Here, 85 percent of respondents rate themselves as "average" or "bad," and no one rates their position as "very good" ("good:" 15%). Of the companies that describe themselves as digital followers, 29% consider their position regarding master data quality to be bad, with only 4% of digital leaders sharing this assessment – but this result is hardly surprising. Just over one fifth (21%) of the small companies rate their master data management as "bad".

In this respect, the differences between individual industries are negligible, nor is there any significant difference in ratings between companies of different sizes.

Of those companies operating a predominantly B2C business, more than a quarter (27%) regard their position in master data management as good. Just under a fifth (18%) of these companies, however, rate their position as "bad." The polarization therefore appears to be more marked in master data management for B2C business.

WHEN IT COMES TO MASTER DATA MANAGEMENT, COMPANIES STILL HAVE A LOT TO DO!

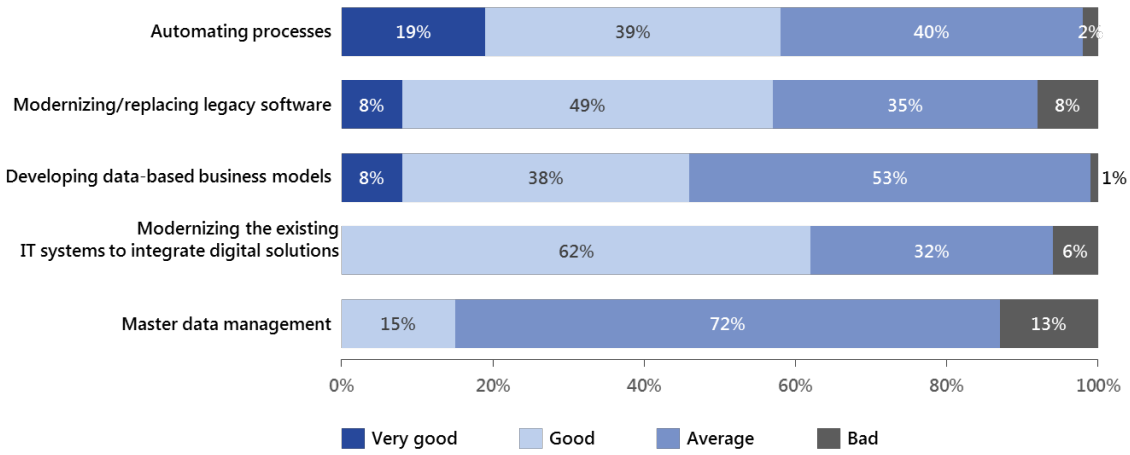


Figure 2: Question: How do you rate your company's position in terms of the following success factors for digital transformation? Scale from 1 = very bad through 5 = very good; all companies; n = 155
Source: Lünendonk

DATA QUALITY HAS IMPROVED – BUT IS STILL NOT GOOD

40 percent of all respondents across all sizes of companies rate data quality in their company as currently either "very good" (16%) or "good" (24%). Neither company size nor business model (B2X) is a differentiating factor here. The assessments of the managers from IT and from the user departments also tally. However, there are significant differences in responses between industries. Just over one fifth (21%) of respondents from the manufacturing industry rate their position regarding data quality as "very good" while only 13 percent of respondents from the retail sector share this assessment.

Although most of the companies surveyed are not very satisfied with their data quality, a lot has changed for the better in the past five years. Just over a quarter of respondents rate data quality today as very much better than five years ago, and almost half of the respondents (47%) rated it as much better. However, 23 percent see only minimal improvements.

What does this mean? The companies are not satisfied with the quality of their master data. 60 percent of them rate it as "average," and while average is not "bad," it is a long way from the major league. A great deal therefore remains to be done, as only around one in six companies (16%) rates the quality of its master data as "very good." The fact that the situation has improved for three quarters of the companies in the past five years is not very helpful – the critical factor is the overall result today. And this is still not sufficient.

DUPLICATE DATA – THE SOURCE OF MANY ERRORS: BUT 85% HAVE NO IDEA HOW MANY

The percentage of duplicate data is important for the quality of master data. What is remarkable is that 85 percent of 134 respondents have no idea how many duplicates exist in the individual data domains of their company. Only one in seven companies (15%) considers itself able to estimate duplicates as a percentage of total master data, with the average here standing at 6 percent. All things considered, we believe this to be a plausible figure.

DESPITE AVERAGE MASTER DATA MANAGEMENT, DATA QUALITY HAS IMPROVED CONSIDERABLY IN THE PAST 5 YEARS

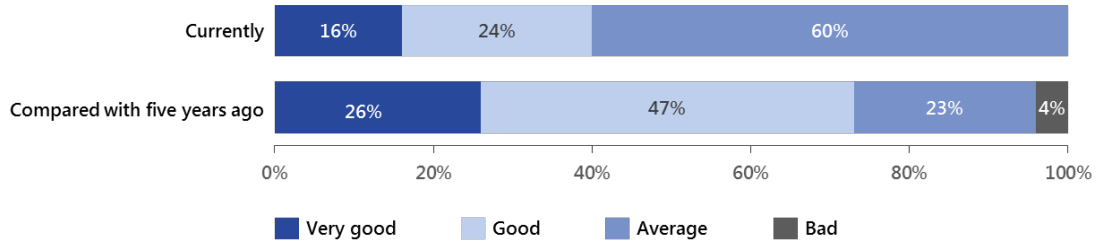


Figure 3: Question: How do you rate data quality within your company? Scale from 1 = very bad through 5 = very good; all companies; n = 155
Source: Lünendonk

85% OF THE COMPANIES DO NOT KNOW THE NUMBER OF DUPLICATES FOR EACH DATA DOMAIN

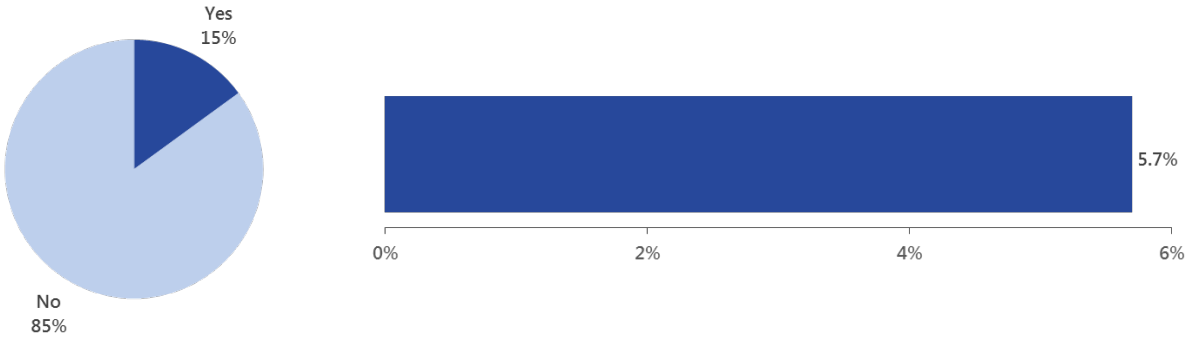


Figure 4: Question: Do you know the number of duplicates for each data domain in your company? n = 134
If you do: How high is the number of duplicates as a percentage? n = 20
Source: Lünendonk

HIGHER-QUALITY MASTER DATA HELPS: NOT ONLY DOES IT ELIMINATE TIME-CONSUMING TASKS – COMPANIES ALSO BECOME MORE PRODUCTIVE AND SUCCESSFUL

Poorly maintained master data costs employees time that could be used for higher-quality tasks or other value-creating work. Eliminating duplicates and manually transferring master data between various applications takes considerable effort.

Exactly how much time this ties up at companies could be assessed only by means of comparative before/after surveys. We therefore asked the participants in our survey for a subjective, unsupported assessment of time lost as a result of poorly maintained master data.

As with any estimate, the range of responses is wide, but the average figure appears meaningful. On average, five percent of working hours can be saved. This means that, in an average week, a clerk would be spared two hours of unpleasant and unproductive troubleshooting. This figure seems to us not implausible and is cited particularly by large companies with more than 2,500 employees. The B2C companies in our survey even tend toward a five to ten percent efficiency increase thanks to optimally maintained master data. And managers at companies with master data management at the bad end of the scale also tend to estimate monthly time-savings of more than five percent (50% of those participants). Midsize companies see the greatest potential savings in this area: 45 percent of participants from this group estimate potential time-savings of more than 5 percent. And this is "only" the efficiency gained from eliminating unnecessary work.

However, as a reliable basis for intelligent business decisions, corporate growth, and prosperity, well-maintained master data also determines companies' success. The majority of our 155 respondents share this view. The increased effectiveness enabled by better master data greatly outweighs the efficiency gains. For example, digital business models are possible only if companies have their master data under control. Or to put it another way: Companies that still do not have their master data under control need not even start with digital business models. This is because linking customer data gathered from online activities (such as apps and web shops) with traditional ERP systems is key to gaining a unified view of a customer relationship.

FIVE PERCENT OF WORKING HOURS CAN BE SAVED ON AVERAGE

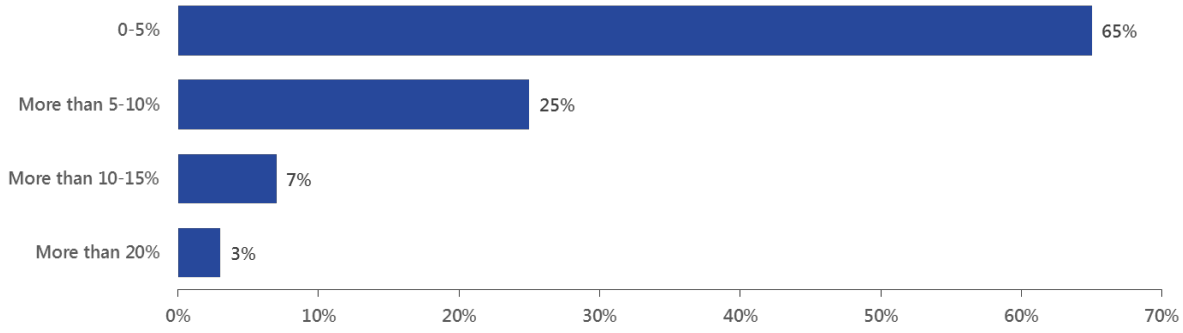


Figure 5: Question: How much time do you estimate could be saved each month if the master data at your company was optimally maintained? As a percentage of working days; all companies; n = 155
Source: Lünendonk

NO HIGH-QUALITY DATA, NO BUSINESS SUCCESS – AND CERTAINLY NOT IN 2018

Companies that lack good data cannot attain a successful market position. Data quality has a very high influence on companies' business success. However, only 60 percent of all the managers surveyed consider this statement to apply to a great extent, with managers in user departments putting even more emphasis than those from IT on the very high significance of data quality (65% versus 55%).

Even more of the respondents (84%) consider it significant that data quality will have a very high influence on business success in just two years from now.

This tends to be true for all B2X business models – with the companies primarily focusing on B2C attributing slightly less significance to data quality today and in two years' time. The worse that companies rate their position with regarding master data, the larger is the number of respondents (90%) who rate the influence of the data on business success as very high. It can be assumed that these respondents have recognized a certain need for optimization.

What is significant is that none of the respondents rated the influence of data quality on business success as "low" or "very low" – neither today nor even in two years' time.

DATA QUALITY IS BECOMING INCREASINGLY CRUCIAL FOR COMPANIES' SUCCESS

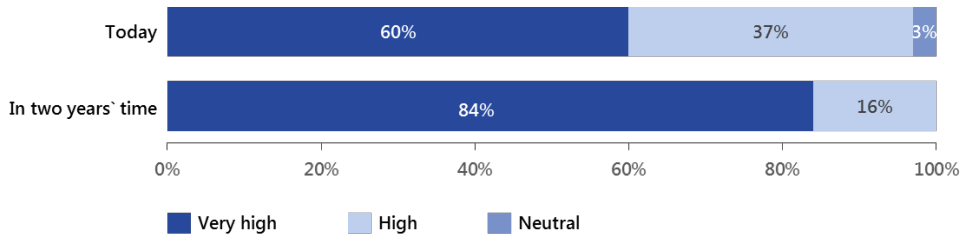


Figure 6: Question: How do you rate the influence of data quality on your company's business success?
Scale today: 1= very low through 5= very high; in two years' time: 1= very low through 5= very high; all companies; n = 153
Source: Lünendonk

GOOD MASTER DATA HELPS CORPORATE MANAGEMENT – FROM ANALYTICS THROUGH TO WORKING CAPITAL

Good data quality, particularly when it comes to master data, has a wide range of positive effects on companies. Our 155 respondents are in clear agreement with many of the pre-formulated theses:

The greatest agreement (82%) was with the assertion that master data provides the basis for performing faster analyses and making good decisions. 86 percent of companies with good master data management agree with this; and even among those with bad master data management, the figure is 72 percent. The statement on reducing throughput times in production and in the supply chain by optimizing master data management met with clear agreement from all respondents (77%), as well as from respondents in the retail sector (75%) – and as many as 86% of production companies agreed with this statement. The evaluation differs significantly between companies with good or bad master data management. As many as 83 percent of the latter group see a major reduction in throughput times (good master data managers: 70%). This can perhaps be interpreted as implying that improvements to master data quality that start from a low level rapidly achieve highly visible results. By contrast, it takes greater effort to further optimize master data that is already good.

71 percent of all respondents support the assertion that better master data management and the resulting change in replenishment times, optimized lot sizes, and minimum order quantities, as well as optimization of suppliers, reduce capital employed. However, there are significant differences between the retail and manufacturing industries here. Only slightly less than two thirds of the people responsible in retail agree with this statement. By contrast, four fifths (81%) of respondents from the manufacturing industry support it. On the other hand, only around half of large companies with more than 2,500 employees concur with this positive evaluation of the effect on capital employed. When it comes to the difference between good and bad master data managers, it would also appear that companies starting from a lower level achieve tangible improvements faster.

The majority of all respondents confirm (73%) that a lack of transparency in supplier relationships results in companies missing out on pooling effects. This is particularly the case for midsize companies (79%) and – as was to be expected – for companies with bad master data management (85%).

By contrast, the respondents see no risk of other IT systems being unavailable for longer periods (99% rejection) as a result of inadequate master data quality. It would therefore appear that master data systems are relatively independent of other IT applications and vice versa.

The statement regarding whether managing master data could be made more difficult by integrating external data sources, such as suppliers' and partners' databases, relates to the master data itself. It would certainly be plausible to assume that additional information provided from external sources will make capturing and processing data more complicated.

However, only slightly more than half of the participants support this assertion, with almost as many rejecting it. Considerably more manufacturing companies agree (59%) than retail companies (40%). The reasons for this include the fact that ecosystems comprising multiple companies are one of the most important preconditions for Industry 4.0. An ever-increasing number of manufacturing companies are connecting with each other, as well as with logistics companies, to create a digital production and supply chain.

Data exchange, mainly from production and logistics systems, lays the foundation for Industry 4.0 business models. And the data involved should be correspondingly homogeneous, particularly the master data. But because optimization projects of this kind entail vast effort for all companies, especially midsize ones, some industrial groups are developing central platforms designed to connect all ecosystem players and offer a central data clearing house.

MASTER DATA IS THE BASIS FOR RAPID ANALYSES AND GREATER PROCESS EFFECTIVENESS

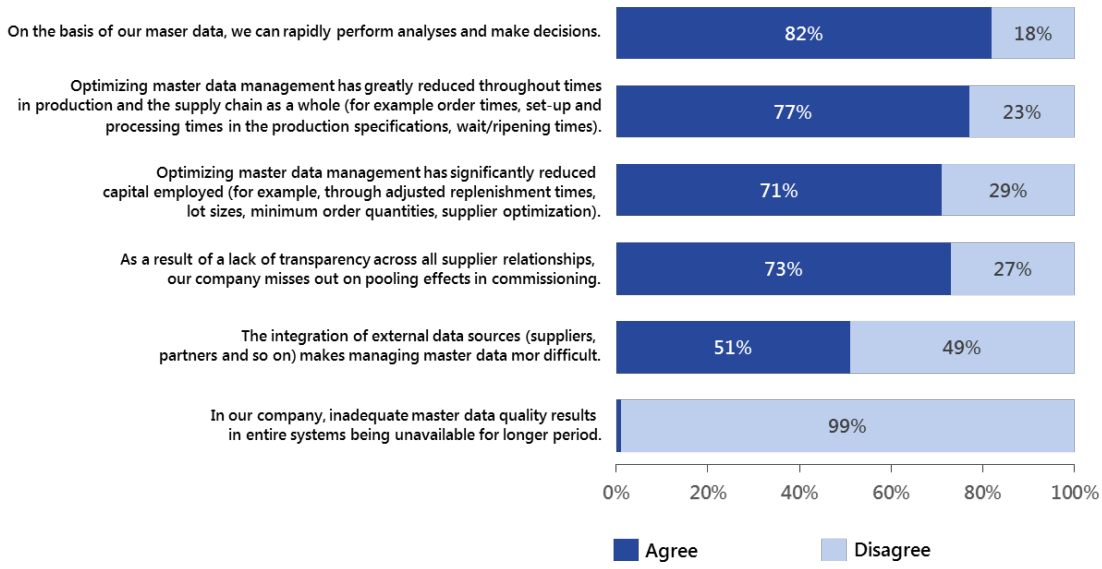


Figure 7: Question: Which of the following statements on the influence of data quality on your company is correct? Scale from 1= correct, 2= not correct, 3= planned; all companies; n = 155
Source: Lünendonk

Organization of master data management

Various individuals and corporate units can be responsible for planning and implementing master data optimization projects: The IT department, the specific user departments involved (for example, marketing, sales, production, logistics), or dedicate master data or data governance managers. So how are responsibilities for planning and implementation distributed? Is there a clear segregation between the two activities? After all, it is difficult to separate planning and implementation of projects aimed at optimizing master data within companies. In many cases, the specific user departments involved define the content of master data and determine how it is allocated to the various corporate units, with the IT departments implementing all this in the systems. However, the boundaries are fluid, and both perspectives must be involved from an early stage.

PLANNING AND IMPLEMENTATION CANNOT BE SEPARATED; USER DEPARTMENTS AND IT CANNOT BE DIVIDED

Almost all our 155 respondents regard the IT departments as responsible for planning as well as implementing projects in master data management. However, 58 percent of respondents believe that the user departments involved are also tasked with planning and implementation.

42 percent of respondents clearly attribute specific planning competency for master data projects to the user departments involved, such as sales, marketing, production, and logistics. We interpret this as indicating a certain tendency on the part of these departments to head up projects of this kind and to play the role of initiator. Moreover, implementing master data projects would likely be virtually impossible without close collaboration between user departments and IT.

In some cases, dedicated master data managers are tasked with planning, or data governance officers are deployed. At companies that rate their master data situation as good, a significantly larger number (38%) of dedicated master data managers are tasked with planning projects of this kind. Conversely, at companies that rate their master data situation as bad, a greater-than-average number (65%) of the user departments involved handle the planning of master data projects. A causal relationship should be treated with caution. The question is whether the user departments are tasked with planning because the data situation at their company is so bad, or vice versa? At manufacturing companies, almost 50% of the user departments are tasked with planning only; at retail companies, the figure is 36%.

IN MASTER DATA PROJECTS, THE IT DEPARTMENT IS ALMOST ALWAYS RESPONSIBLE FOR THE PROJECT AS A WHOLE

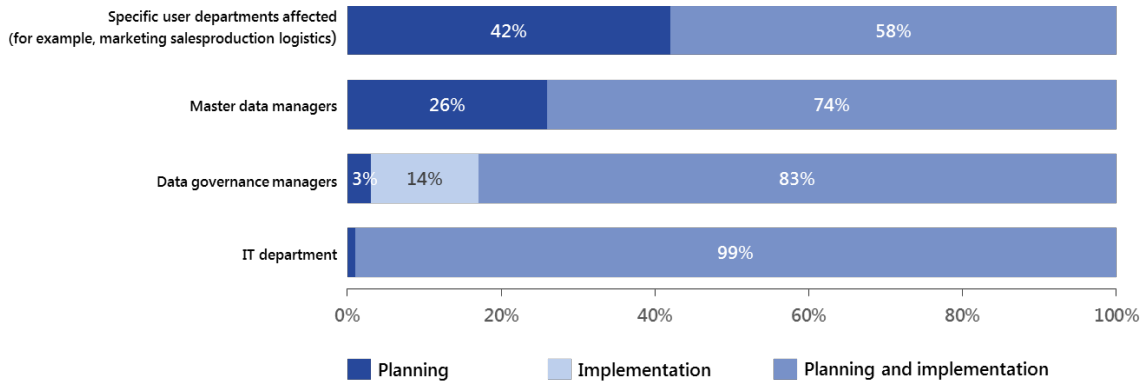


Figure 8: Question: Who is responsible for planning and implementing projects aimed at optimizing master data in your company? All companies; n =155
Source: Lünendonk

AN ORGANIZATIONAL UNDERPINNING IS ESSENTIAL FOR GOOD QUALITY MASTER DATA

The integration of master data management into the company's organization and processes is a critical factor for the quality of master data and of master data management. This integration is vital for the success of master data management, which is visible, for example, in the immediate use of the data for analysis and its availability throughout the company, without data silos.

We offered our respondents statements describing the organization of master data within their company:

- Company-wide coordination across the activities, structures, processes, and functionalities of master data management is in place.
- There is a dedicated management system for master data management.
- Master data management is systematically integrated into the organization and processes.
- New master data is fed directly into business applications and analytics, and does not remain in silos.
- Standards and specifications for managing the master data are integrated into the operational work processes.

INTEGRATION OF MASTER DATA MANAGEMENT INTO ORGANIZATION AND PROCESSES

73 percent of all respondents state that enterprise-wide coordination of all master data management structures, functionalities, processes, and activities is in place at their company. Just under one fifth (19%) are still working on this, and eight percent have yet to introduce it. Digital leaders state this slightly more often than digital followers (76% versus 68%).

At the same time, however, only 51 percent of the respondents stated that master data management is systematically integrated into the organization and processes at their company. Leaders agree with this more than followers, production companies (51%) more than retailers (44%), and agreement is highest among the large companies (58%).

Likewise, just slightly more than half of all respondents (52%) confirm that standards and specifications for managing master data are integrated into their operational work processes. Agreement with this statement is highest among large companies (61%).

And only 35 percent state that they have a dedicated management system for master data management. This is not applicable for more than half of the respondents (52%), and approximately one in seven companies (13%) is still working on such a system. Slightly more IT managers (41%) than user departments (29%) say that a management system of this kind is in place at their company.

More than half of the respondents (53%) state that new master data is fed directly into business processes and analytics, and does not remain in silos. Unfortunately, just under a quarter of respondents still have silos of this kind (24%). The managers from IT (60%) also view this rather more optimistically than the user departments (47%), and the leaders naturally somewhat more positively than the followers (60% versus 42%).

In contrast to the total sample, only 63 percent of the companies in the retail sector have company-wide coordination of the structures, functionalities, processes, and activities of master data management in place. In the manufacturing industry, significantly more companies (78 percent) have such structures.

ONE IN TWO COMPANIES HAS NO MANAGEMENT SYSTEM FOR MASTER DATA

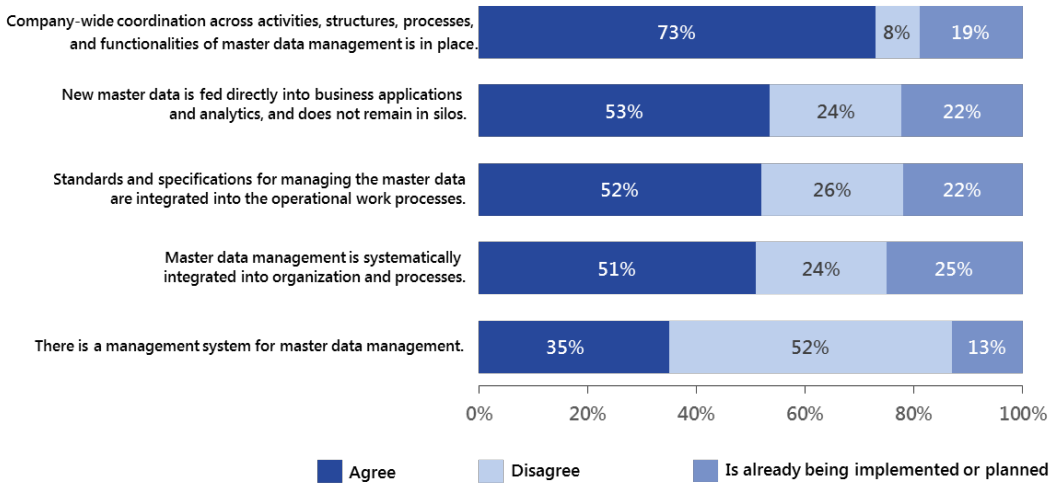


Figure 9: Please rate the following statements on the organization of master data within your company. All companies; n = 155

Source: Lünendonk

However, as became evident at the outset of this study, organized coordination of master data activities does not necessarily result in high master data quality. Only a minority of companies rate the quality of their master data as good or very good.

Although a total of three quarters of the companies coordinate management of their master data, further analysis reveals some shortcomings.

Only 51 percent of the companies surveyed state that their master data management is integrated into the organization and processes. Almost the same number of companies (52%) have developed standards and specifications for managing master data and have integrated these into their processes. From this, it follows that while some companies coordinate activities internally, they have not taken any further organizational and process-related measures.

THE RESULT OF GOOD MASTER DATA ORGANIZATION? DATA ANALYTICS IN NEAR REAL-TIME AND WITHOUT DATA SILOS

But there is also good news. 53 percent of all respondents claim that new master data at their company is fed directly into business applications and analytics, and does not remain in isolated data silos. However, around a quarter (24%) state that data still resides in silos of this kind; and just over a fifth (22%) are working on improving this situation.

More than 80 percent of companies that rate their master data management as good, and a similar percentage of those that rate it as bad, state that they have enterprise-wide coordination of master data management in place. However, when it comes to the results, differences are apparent: 70 percent of the companies with "good" master data management feed the new master data directly into business applications and analytics, avoiding silos. Only half of companies (50%) with "bad" master data management achieve this. One reason for this could be that standards and specifications for managing master data are integrated into the operational work processes at 65 percent of the better positioned companies, while this is the case at only 53 percent of the comparison group.

Furthermore, large companies with more than 2,500 employees seem to do rather better than average. This is likewise the case with regard to integrating standards and specifications for master data management (61% versus an average of 52%), with regard to systematic integration into the organization and processes (58% versus an average of 51%), and overall with regard to ensuring establishing enterprise-wide coordination of master data management (80% versus an average of 73%).

WHAT HAMPERS SUCCESS IN MASTER DATA MANAGEMENT?

So where do the problems lie when master data management does not function as it should? Is it that master data management is not sufficiently integrated into the corporate strategy? Is it due to the focus of organization and processes? Is there a lack of data governance or of technological support from automation solutions, central master data management platforms, a single point of truth, and so on?

Overall and across all industries, the 155 respondents consider insufficient integration of master data management into corporate strategy (64%) to be the most important cause of master data management problems.

Despite enterprise-wide coordination of master data activities at most companies, senior management appears not to recognize the significance of master data for the success of business models and for customer satisfaction. While there would appear to be an awareness of the significance of master data among senior managers, the issue is often regarded as an IT one and is delegated accordingly. IT then responds by investing in technologies and process optimizations, but the actual core problems of master data management remain.

This primary reason is followed, at some distance (58%), by inadequate technological support – including absence of automation solutions, and non-existent central master data management platforms, or the lack of single points of truth, for example. Here, too, the argument concerning the lack of a "master data lobby" within the companies may explain this. For example, many CIOs have had urgently needed investments in master data management systems either axed completely or at least reduced in favor of digitization projects. In other words, the second step is often taken before the first in this area.

52 percent – with retail companies (57%) accounting for a slightly higher figure than manufacturing companies (47%) – see the reason as lying in the current focus of the organization (organization and processes) and in insufficient or even non-existent data governance (43%), with the manufacturing companies (47%) considering this a greater problem than the retailers (33%).

This ranking applies, irrespective of whether the companies consider their position in master data management to be good or bad, and whether they are manufacturing companies or retailers. Only the other companies consider insufficient technological support to be the main reason. Small companies with between 1,000 and 1,500 employees see a lack of technological support as their greatest shortcoming. By contrast, for companies operating predominantly in the B2C segment, the current focus of the organization and processes is by far the most important reason.

MASTER DATA MANAGEMENT AND CORPORATE STRATEGY ARE RARELY INTERCONNECTED

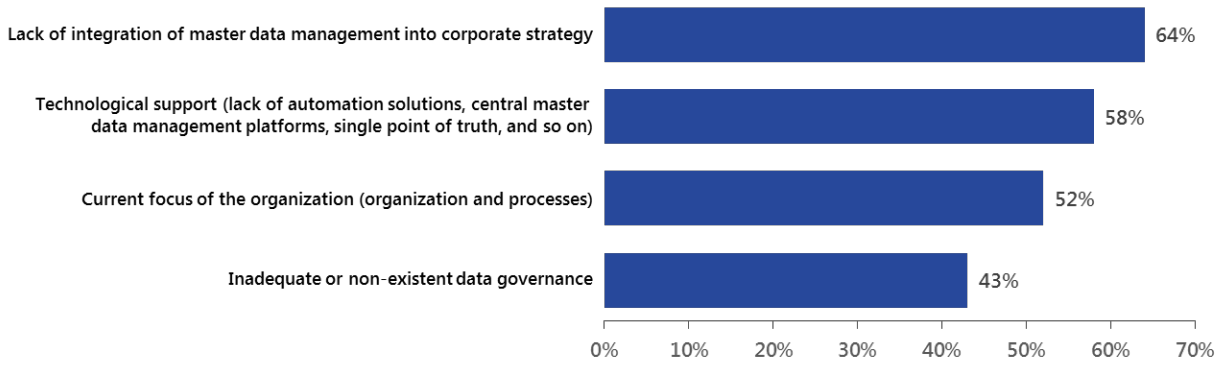


Figure 10: Question: What do you see as the reasons for problems in master data management? All companies; n = 155 Source: Lünendonk

Data Governance and Transparency

MANY HAVE A STRATEGY, BUT PROCESSES AND AUTOMATION STILL FALL SHORT OF THE MARK

The participants in our study also commented on data governance at their companies. To enable standardized comparisons between the responses, the respondents were shown brief statements on data governance at their companies, which they could agree with (already introduced), reject, or describe as being planned or implemented.

Statements for selection on data governance:

- A data governance strategy exists.
- Master data is mainly entered manually.
- Master data mainly resides in redundant systems.
- A standardized process for distributing master data exists.
- Our company has local and global master data that is also managed at different places within the company.

For all types of company, local and global master data is managed at different places within the company. This inevitably leads to an unchecked proliferation of data and consequently to inefficiencies in the master data systems, as well as to a lack of unique master data types. One positive aspect worth mentioning is that more than half of the companies (53%) have a data governance strategy. This is the case at 45 percent of the manufacturing companies and at as many as 56 percent of the retail companies. However, it is not the case at around a quarter (27%) of the companies, and a further 20 percent are still working on this. Another impressive result is that almost half of the companies (46%) have a standardized process for distributing master data. This is the case at large companies (49%) more often than at small ones, and in retail (51%) more often than in manufacturing (42%). Over a quarter of the companies are in the process of establishing such a process (26%).

This being said, the other statements are far less positive and are the consequence of a lack of data governance: 97 percent of the respondents complain that their company has local and global master data that is managed at different places within the company. In addition, at 37 percent of all the companies, and as many as 46 percent of the retail companies (manufacturing: 32%), master data mainly resides in redundant systems.

And at 62 percent of the companies, the master data is still mainly entered manually – surprisingly, at large companies (69%) more often than at small companies (55%).

There are large differences between companies that rate their master data management as good and those that rate it as bad: 70 percent of the companies with badly managed master data still enter this data mainly manually, and 39 percent have not developed a data governance strategy. 68 percent of them have no standardized process for distributing master data. By contrast, only 54 percent of the companies with good master data management still mainly enter their master data manually. This figure is high when one considers that 65 percent of the companies surveyed have a data

governance strategy. This means that some of the companies surveyed invest considerable manual effort in managing their master data, despite having data governance.

There are marked differences between manufacturing companies and retail companies. Only 47 percent of manufacturing companies still enter master data manually, compared with 71 percent in the retail sector. On the other hand, 56 percent of the retail companies have a data governance strategy (manufacturing companies: 45%), and 51 percent have a standardized process for distributing master data within the company (manufacturing companies: 42%).

MASTER DATA: INTERNAL EFFICIENCY IS THE PREREQUISITE FOR GROWTH IN THE MARKET

Efficiency requirements and cost considerations are the most common reasons for data management projects (90% of responses). Only in slightly less than 40 percent of responses is the impetus for master data management projects external, originating from customers, suppliers, or other partners.

This ranking of drivers applies irrespective of the industry, the customer segments served (B2B or B2C), or the self-assessment of the company as a good or bad master data manager. The size of the company also has no effect on this ranking.

THE REALITY AT COMPANIES IS CURRENTLY CHARACTERIZED BY CENTRAL DATA MANAGEMENT AND MANUAL ENTRY OF MASTER DATA

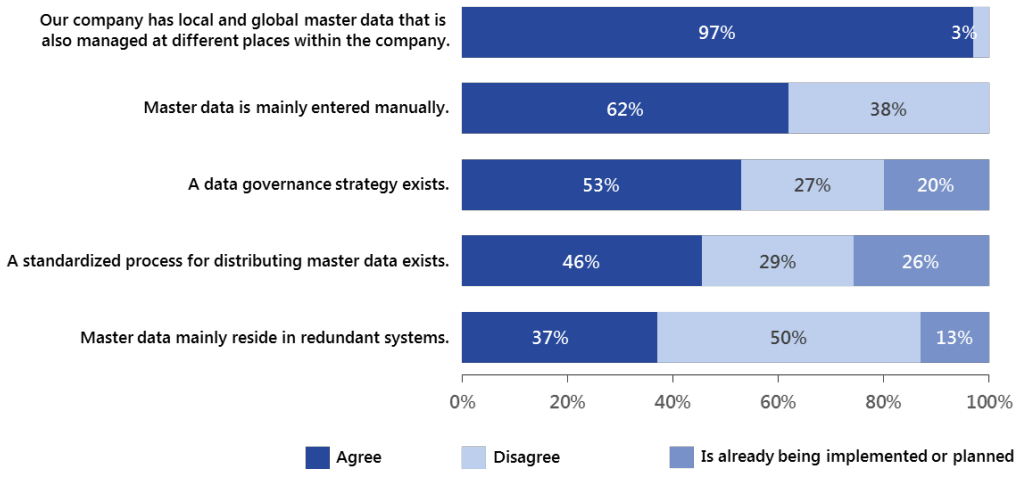


Figure 11: Question: Which of the following statements regarding your data governance applies at your company? All companies; n = 155
Source: Lünendonk

REASONS FOR MASTER DATA PROJECTS

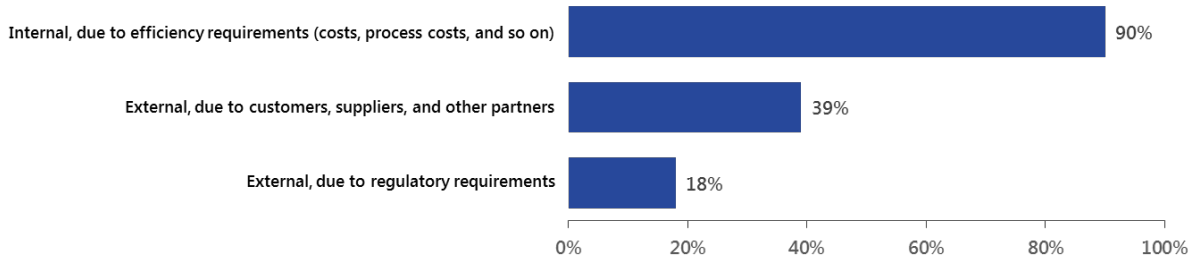


Figure 12: Question: What drives master data management projects?
Multiple responses possible; n = 155
Source: Lünendonk

MASTER DATA QUALITY CAN BE DETERMINED BY FOUR CRITERIA

Various criteria must be applied simultaneously to describe the quality of master data: Its up-to-dateness, consistency, and completeness, as well as the underlying semantics. All these criteria are of roughly equal importance – for example, having data that is up to date but incomplete is useless for user departments and decision-makers alike. The participants in our survey rate the quality of their master data on a four-point scale (very good – good – neutral – low). To bring the views expressed into clearer focus, we have grouped "very good" together with "good," and the far-from-enthusiastic "neutral" with "low" in some cases.

ON THE WHOLE: MASTER DATA IS INCOMPLETE AND NOT UP TO DATE

39 percent of all respondents consider the up-to-dateness of their master data to be "very good" or "good." From a pessimistic point of view, however, that is just slightly more than a third, versus 62 percent who rate the up-to-dateness of the data as "low." When it comes to the consistency of the data, the situation is a little better. 70 percent regard this as "good" or "very good" – the best sub-evaluation of data quality on average across all companies. The evaluation of the completeness can be viewed at best as insufficient: 68 percent appear to lack important master data. This figure includes 12 percent who are extremely dissatisfied with the completeness of their master data. A somewhat better result can be seen in the evaluation of semantics, which 42 percent of respondents feel to be "good" or "very good".

The most important difference between respondents who rated themselves good master data managers and those who rated themselves bad is seen in the criterion of completeness. One in nine of companies (11%) that perceive their master data management to be bad perceives its master data as not ("low") complete, and a further 42 percent rate the completeness as merely "neutral." And, as was to be expected, more of the digital followers find their master data bad (17%), compared with just 8 percent of the leaders.

ALL COMPANIES: CONSISTENCY MOSTLY EXISTS, BUT THERE ARE PROBLEMS WITH THE UP-TO-DATENESS AND COMPLETENESS OF MASTER DATA

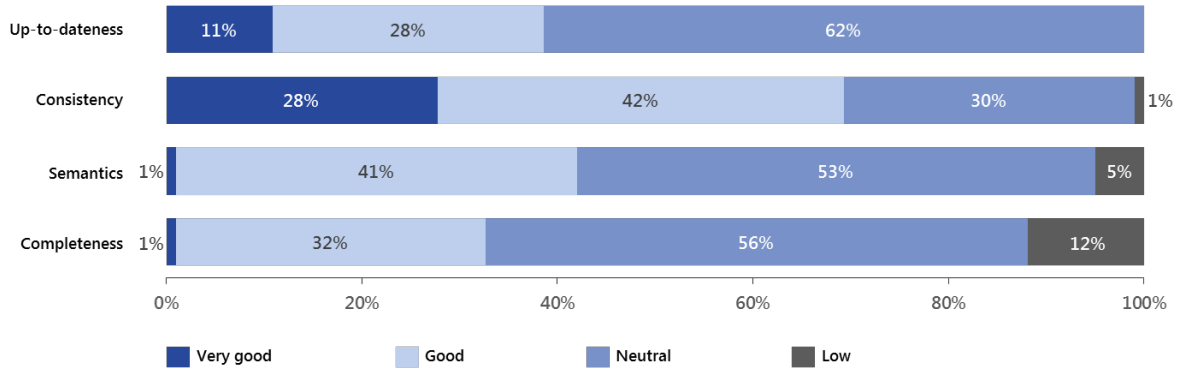
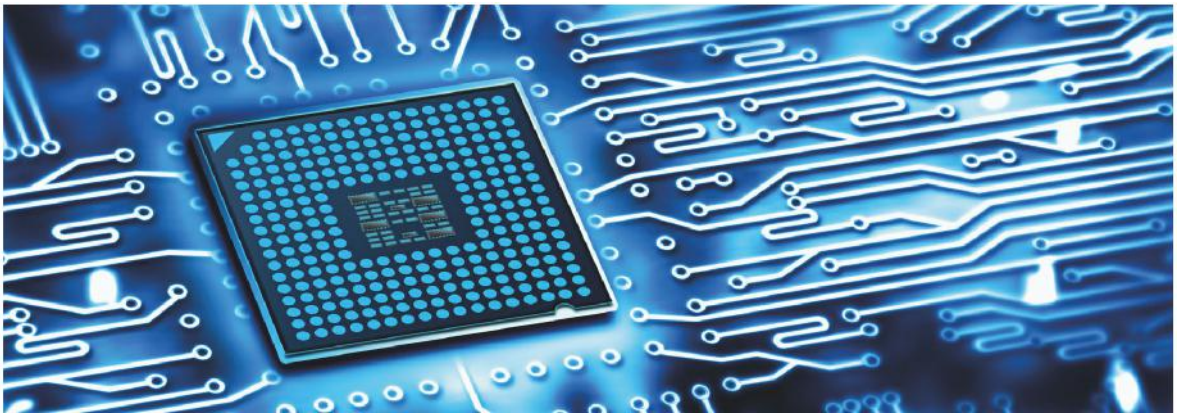


Figure 13: Question: How do you rate the quality of your master data in terms of the following criteria? Scale from 1 = very bad through 5 = very good; all companies; n = 155
Source: Lünendonk

MANUFACTURERS AND RETAILIERS HAVE SATISFACTORY MASTER DATA. BUT THAT'S NOT ENOUGH.

The manufacturing companies would appear to be quite satisfied with the up-to-dateness (38% "good" and "very good") and the consistency (72% "good" and "very good") of their data. Roughly the same applies to retail companies, although they would clearly like more up-to-date data. Only 4 percent are very satisfied with the up-to-dateness of their data, compared with 21 percent of the manufacturing companies. The results are similar as regards consistency. Only 20 percent of retail companies are very satisfied ("very good") compared with 36 percent of manufacturing companies. And here, again, it is evident that the managers from IT also rate this aspect more positively than the user departments. 35 percent of the managers from IT regard the consistency of master data as very good, compared with just 21 percent in the user departments.



MANUFACTURING COMPANIES HAVE A SLIGHT EDGE OVER RETAILERS WHEN IT COMES TO UP-TO-DATENESS AND CONSISTENCY

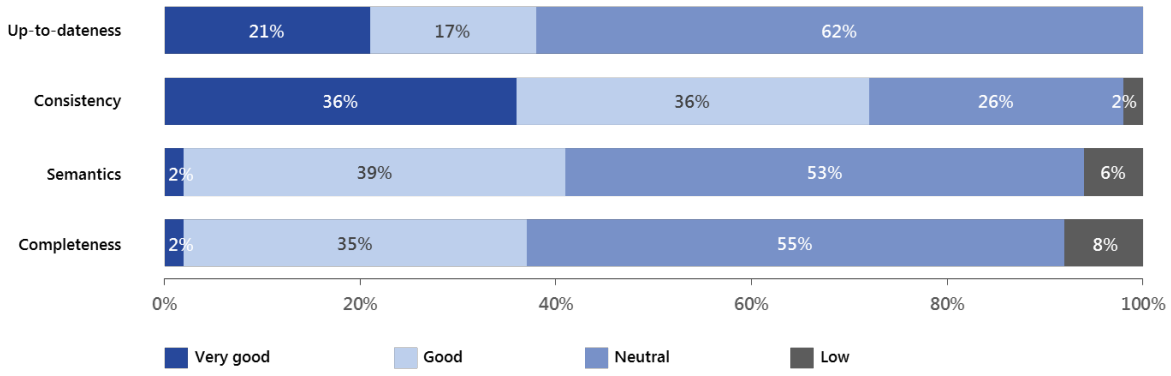


Figure 14: How do you rate the quality of your master data in terms of the following criteria?
Manufacturing companies; Scale from 1 = very bad through 5 = very good; n = 54
Source: Lünendonk

UP-TO-DATENESS IS KEY TO SUCCESS, PARTICULARLY FOR OMNICHANNEL BUSINESS MODELS

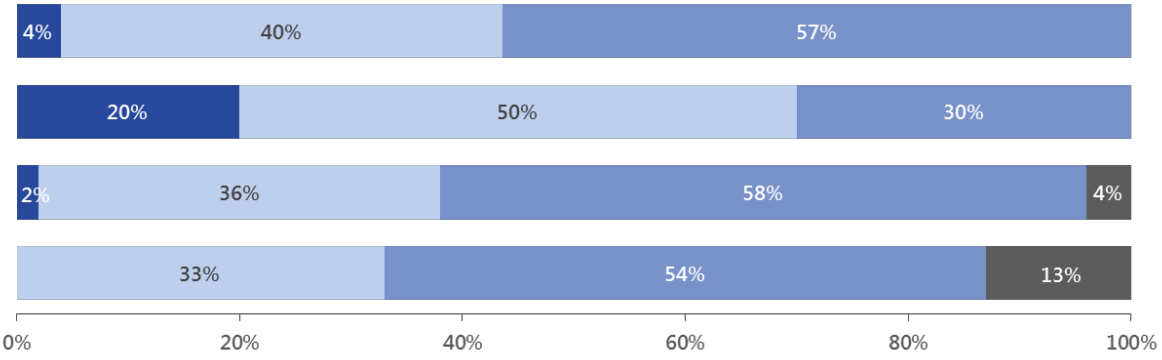


Figure 15: How do you rate the quality of your master data in terms of the following criteria?
Retail companies; Scale from 1 = very bad through 5 = very good; n = 55
Source: Lünendonk

TOOLS AND SOFTWARE FOR MASTER DATA MANAGEMENT

In practice, there are various methods for evaluating the quality of master data. For example, the distribution of data to various recipients can be monitored. According to this survey, this is the dominant method, used by 78 percent of all respondents. Moreover, a further 7 percent of those surveyed plan to deploy this method soon. However, nearly a quarter of the small companies are not planning monitoring of this kind (large companies: 6%).

In second place, currently used by 63 percent, are software-based workflow processes for entering master data – an apparently popular method, as a further 37 percent of all respondents plan to introduce it soon, which would mean that all the companies surveyed are using it.

Dashboards are used to manage the indicators of data quality (32%) and validation/rules for entering master data (22%) considerably less often than the above methods. However, 32 percent and 43 percent of respondents respectively plan to deploy these two methods in the future.

As regards the relative responses on use of methods for measuring master data quality, there are no differences between companies that rate themselves as good and those that see themselves as bad master data managers. Consideration of the industries also yields no significant deviations from the average of all respondents.

DIFFERENT METHODS TODAY: BUT EVERYONE WANTS WORKFLOW PROCESSES IN THE FUTURE

Depending on the size of the companies, there are marked difference in the use of the methods for measuring the quality of master data. At present, only 73 percent of small companies (with 1,000–1,500 employees) use monitoring of data distribution. However, 78 percent of companies in the midsize category already use this type of monitoring, and as many as 85 percent of the large companies with more than 2,500 employees use monitoring methods.

When it comes to software-based workflow processes, considerably more than half of all respondents use methods of this kind. In addition, 37 percent plan to deploy such a method.

Dashboards are used relatively frequently by small companies (43%), and only by just under a third (31%) or just over a fifth (22%) of large companies. Validations and rules for data entry are deployed relatively rarely but are planned by many.

MONITORING IS THE PREFERRED METHOD FOR MEASURING THE QUALITY OF MASTER DATA

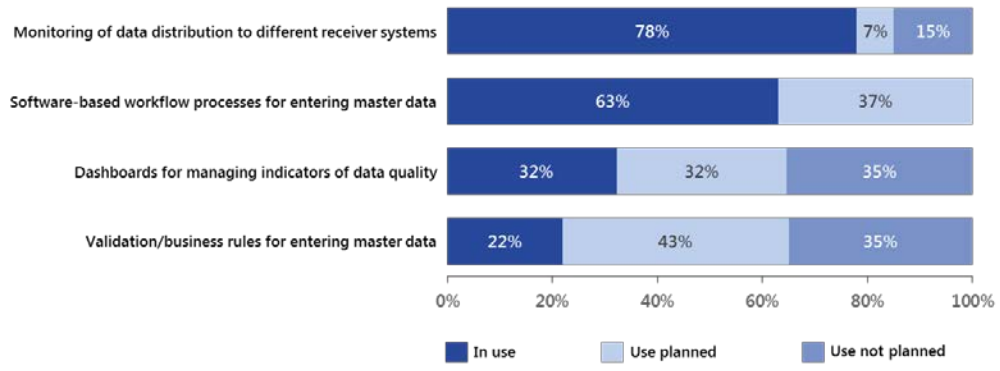


Figure 16: Question: Which methods are deployed at your company to measure the quality of master data or to identify bad master data? All companies; n = 155
Source: Lünendonk

In brief: Where do companies see their master data management – today and tomorrow?

To present the master data situation at a company and the quality of the master data and transaction data at the individual companies as clearly and consistently as possible, the respondents gave their views on predefined, meaningfully condensed statements about the current status of master data management in sales and marketing in the manufacturing and retail industries.

MARKETING AND SALES: GREAT SALES POTENTIAL THROUGH USE OF MASTER DATA, BUT HARDLY ANY INTEGRATION OF THE NEW ELECTRONIC SALES CHANNELS

For the marketing and sales field of application, the participants from all industries were provided with four statements for discussion:

- All relevant customer data is available to sales and marketing in a central master database
- Purchase orders, orders, interaction data (for example, website), and invoices can always be assigned to a customer, providing transparency in a customer relationship
- Cross-selling or up-selling potential can be identified based on sales to individual customers in different product categories or corporate units
- Master data from digital marketing channels (web shop, apps, and so on) is automatically linked to existing master data

Companies from all industries are using an ever-growing number of different sales channels and developing from multichannel companies into omnichannel organizations. The new sales channels supplement the old ones and must be integrated with them. This also applies to the master data of the new digital marketing channels, such as web shops, apps, and so on, which should ideally be linked automatically with the existing master data. For 56 percent of 155 respondents from all industries, however, this is not the case – a result that would be grounds for pessimism were it not for the almost one third of respondents (32%) who state that automatic linking of this data is currently being planned and implemented. The size of the companies makes no difference to this result. In the retail sector, 56 percent are implementing automatic linking.

This situation accords with the assessment that just under a quarter of respondents (23%) are working on making available all relevant customer data in sales and marketing in a central master database.

Overwhelming majorities of 95 percent and more of all respondents agree with our two statements regarding the benefits of good master data management. Cross-selling and up-selling potential can be identified for individual customers based on sales in the different product categories and corporate units. Likewise, the respondents consider customer relationships to be transparent because purchase orders, orders, interaction data, and invoices can always be assigned to a specific customer.

MASTER DATA MANAGEMENT MAKES OMNICHANNEL BUSINESS MODELS DIFFICULT IN MANY CASES

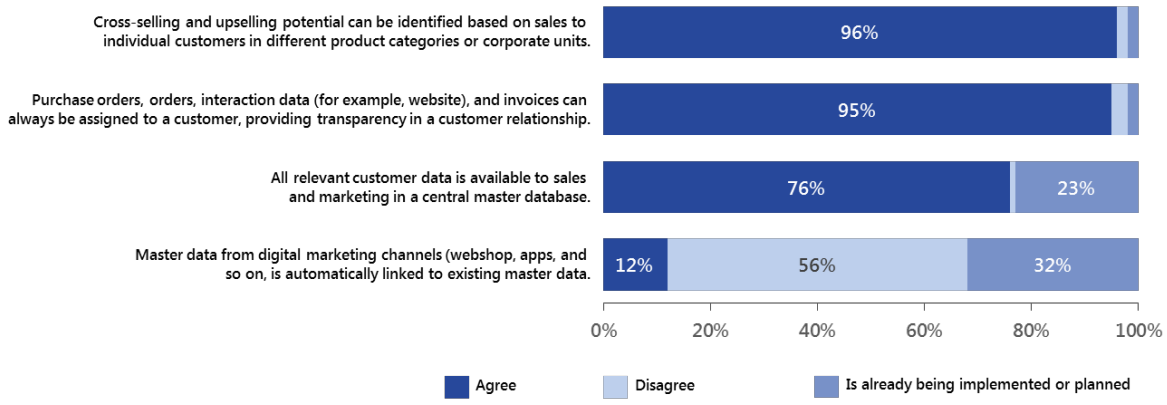


Figure 17: Please rate the following statements about the situation of master data management with regard to the following fields of application: Sales and marketing field of application;
All companies; n = 155

Source: Lünendonk

CUSTOMIZED MANUFACTURING AND INTERNATIONAL PROCESS CHAINS MAKE UNIQUE CLASSIFICATION NECESSARY AND GIVE RISE TO MORE MASTER DATA

For the production field of application, the participants were provided with four statements for discussion:

- In the future, products must, wherever possible, be identifiable by a globally unique number to track the product throughout the life cycle, and enable it to be uniquely identified within autonomous process chains.
- Increased customization during production is giving rise to ever more master data for product variants across the entire life cycle.
- The use of sensors in intelligent production machines plus augmented reality give rise to new master data in the system.
- The master data system must be updated in real time, as delays in master data processes result in disruption to ongoing business operations.

All 54 respondents from production companies fully agree with two key statements: The one says that, in the future, products must, wherever possible, be identified by a globally unique number enabling them to be uniquely identified throughout the life cycle and in all process chains. The other says that increased customization during production is giving rise to ever more master data for ever more product variants across the entire life cycle. In both cases, the high level of agreement is unsurprising.

The assertion that the use of sensors in intelligent production machines plus augmented reality gives rise to new master data in the systems was confirmed far less often. 44 percent of respondents find that this is not the case. Around 30 percent say that this certainly applies to their company or are even already at the planning or implementation stage. This position is surprising, as the number of master data records tends to be determined more by the number of semi-finished products or product variants than by new data capture techniques.

The statement that it is necessary to update the master data management system in real time, as delays in master data processes disrupt ongoing business operations was broadly rejected (55%). Of the respondents with an IT background, 50 percent did not agree with this assertion.

CUSTOMIZED AND GLOBALLY IDENTIFIABLE PRODUCTS GIVE RISE TO LARGE DATA VOLUMES

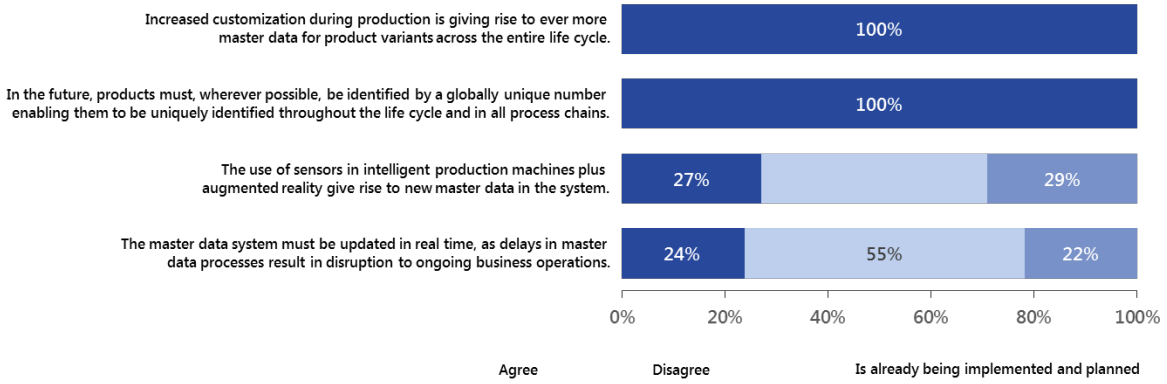


Figure 18: Please rate the following statements about the situation of master data management with regard to the following fields of application: Field of application, production; n = 54
Source: Lünendonk

RETAIL: THE REQUIREMENTS THAT MASTER DATA HAS TO MEET ARE CHANGING. BUT HOW?

For the retail field of application, the participants were provided with four statements for discussion:

- In the future, articles must, wherever possible, be identifiable by a globally unique number to track the product throughout the life cycle, and enable it to be uniquely identified within autonomous process chains.
- Expanding business models to include e-commerce channels requires standardized customer master data across all sales channels.
- The foundation for click-and-collect scenarios is error-free and standardized product master data.
- New business models such as "customer-specific in-store manufacturing" or "automatic customer recognition" place totally new demands on master data.

55 master data managers from the retail sector rate four statements for us that relate to the quality demands placed on master data in the broadest sense. 94 percent of respondents agree with the statement that new demands are generally placed on master data by new business models. These new business models include customer-specific in-store manufacturing, such as sports shoes custom-produced directly in the store using a 3D printer (for example, Adidas) or automatic recognition and identification of customers entering the store by means of beacons for personalized customer engagement.

It is rather surprising that 16 percent of respondents in the retail sector do not believe that articles will require globally unique article numbers for identification across process chains and the life cycle in the future. However, 43 percent of them believe that such an article number is necessary, and a further 41 percent are already working on the associated planning or implementation.

A similar – and equally surprising – result relates to the necessity of error-free and standardized article master data as a basis for the click-and-collect sales channel, where customers collect online orders from brick-and-mortar outlets. As many as 28 percent of respondents state that standardized article master data is not a prerequisite for this. 24 percent take the opposite view – and almost half of respondents (48%) are already working on planning and implementation.

As in the statements on article master numbers, the agreement with or rejection of the assertion that the expansion of business models to include e-commerce channels requires standardized master data across all sales channels is startling. It was assumed that this could be taken for granted.

However, fully one quarter of all respondents surprisingly find that this is not the case. But they are contradicted in word and deed by three quarters of the managers in the retail sector: 27 percent confirm the assertion, and 47 percent are already planning and implementing a standardized customer master data system across all sales channels. And in the retail B2C segment, virtually all ten companies surveyed are certain that standardized customer master data is necessary across all sales channels.

In particular, companies with between 1,000 and 1,500 employees see this necessity: 30 percent agree; 70 percent are already at the implementation stage. Only 19 percent of the digital followers are certain that customer master data is required across sales channels. By contrast, the corresponding figure among the leaders is 31 percent.

RETAIL COMPANIES ARE CURRENTLY WORKING HARD TO FOCUS THEIR MASTER DATA MANAGEMENT ON DIGITAL BUSINESS MODELS

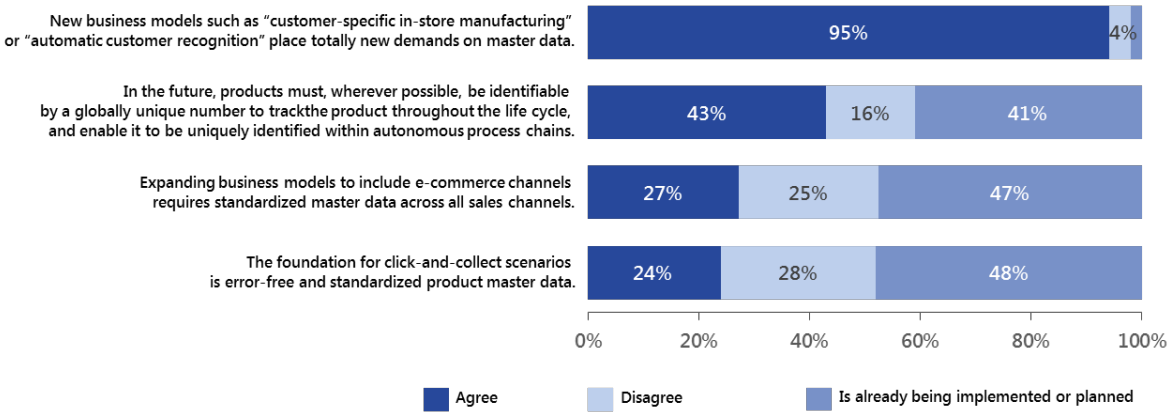


Figure 19: Please rate the following statements about the situation of master data management with regard to the following fields of application: Field of application, retail; n = 55
Source: Lünendonk

Demographics of the survey

STATISTICAL FOUNDATIONS OF THE SURVEY

This Lünendonk® survey on master data summarizes the results of polling 155 managers at companies from different industries. There is a balanced distribution of respondents. One third of those surveyed come from the retail sector, the manufacturing industry, and other industries respectively.

Just under half of the companies (48%) have between 1,500 and 2,500 employees; 28 percent of them have between 1,000 and 1,500 employees; and just under a quarter have more than 2,500 employees.

49 percent of respondents belong to the senior management level, as data governors, chief information officers (CIOs), or chief data officers (CDO). The other half are master data managers in user departments or financial controlling.

Just under 40 percent of the companies operate predominantly in B2B business. 54 percent serve both private and business customers. 7 percent focus primarily on B2C business. In our survey, however, this amounts to just ten companies, which we have considered in the interest of more precise statements.

POSITION OF RESPONDENTS

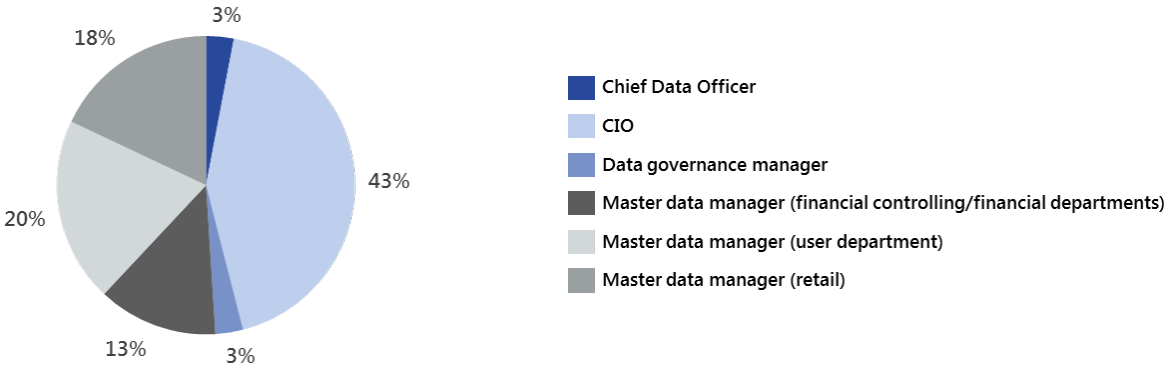


Figure 20: Respondents by position within the company
Source: Lünendonk

INDUSTRY AND SIZE OF THE COMPANIES SURVEYED

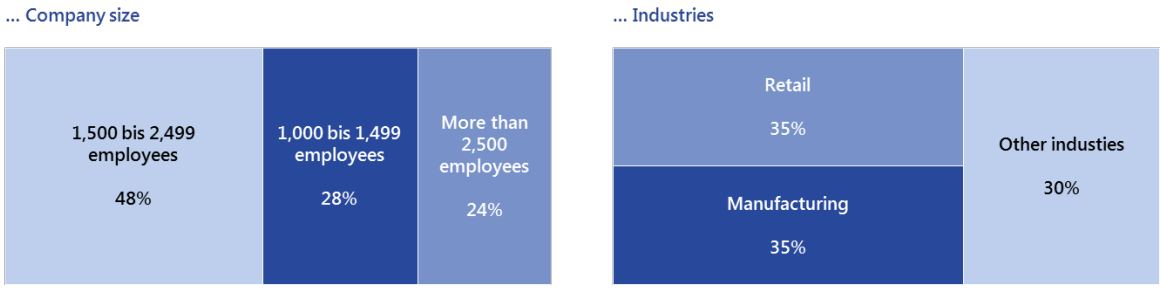


Figure 21: Respondents by industry and company size
Source: Lünendonk

STATEMENTS ON THE STRATIFICATIONS USED (FILTERS)

For better analytical penetration of the data, various filters are used to stratify the data. This enables more nuanced statements to be made in many cases. The following stratifications prove particularly useful here: Filtering of the companies by industry (manufacturing industry, retail, and other sectors, with the other sectors appearing to be too heterogeneous for separate commentary), as well as by company size classes.

Three company size classes were defined: Small companies (1,000–1,500 employees), midsize companies (1,500–2,500 employees), and large companies with more than 2,500 employees.

It is also helpful to differentiate the companies depending on whether they primarily serve business customers (B2B) or end consumers (B2C). There are likely to be different requirements of and demands on master data in these two areas.

The distinction between respondents depending on whether they come from IT or from user departments also enables interesting insights, providing quite different perspectives on the same issues within the company. Filtering by whether the companies rate themselves as good or bad master data managers has also delivered useful insights.

54% OFFER BOTH B2C and B2B SERVICES

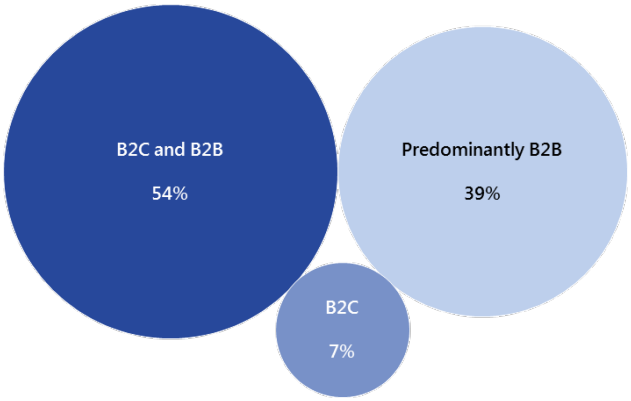


Figure 22: Stratifications applied in the survey
Source: Lünendonk

Interviews and specialist articles

INTERVIEW WITH PATRICK BRAUN, DR. ANDRÉ CLAASSEN, AND FRANK ROCHLITZER, CONSULTANTS AT KPS

"We are approaching a peak"

SPECIALIST ARTICLE BY KPS

Digital transformation requires consistent master data

INTERVIEW

"We are approaching a peak"

André Claassen
Partner

Patrick Braun
Partner

Frank Rochlitzer
Associate Partner

The quality of master data has always played an important role for retailers. In this interview, Patrick Braun, André Claassen, and Frank Rochlitzer, consultants at management consultancy KPS, explain the new demands posed by digital transformation.

Lünendonk: When it comes to master data, what situation do you typically encounter at retail companies?

Claassen: The situation varies widely, but usually there is a lack of transparency. In the various company departments, people work with different tools for entering master data. This is particularly true for customer master data. For example, a retail company has three or four different sales channels through which it collects its customer master data, which is then stored in different structures. As a result, the same customer may exist with different spellings and with various profiles. This makes a standardized and transparent view of the customer impossible.

In addition, there is often a lack of clear objectives. Today, as in the past, most stationary retailers are primarily interested in sales per unit area. They are often less interested in customer performance in the form of share of wallet. E-commerce companies have a considerable edge in this respect, because they have no costs for floor space and focus firmly on customers.

Rochlitzer: The SAP S/4 HANA Retail for merchandise management solution is now a good reason to tackle the issue of master data in earnest. To deploy this product, companies must harmonize their master data and consolidate it in a standardized repository. Tackling master data is therefore no longer just a strategic issue but is becoming an operational imperative.

Lünendonk: What has changed with the release of the new SAP solution?

Rochlitzer: This new development brings a very sizable reduction in previous functionalities. This means that functions from SAP Business Suite applications, such as CRM, SRM, and SCM, are returning to the core ERP product. Certain unused or duplicate functionalities are being weeded out. This is all taking place under the banner of simplicity. The new system is a lot leaner. It enables companies to work with a central data pool in real time. This means IT has reached a point where the requirements of the omnichannel world can be met using standard software. That's a real quantum leap.

Lünendonk: And anyone who wants to leverage these opportunities now to tackle their master data?

Rochlitzer: That's my core message. We've been having these strategic discussions about the quality and organization of master data for years. Recently, the discussion has also been driven by changes in the market. In other words, the influence of online retailing in conjunction with new expectations on the part of customers. Pressure from the customer side has now been joined by pressure from the technology side. For the first time, IT is actually able to implement the requirements of the digital world on the basis of standard products. This means we are approaching a peak, where increased expectations and technological challenges converge, and a feasible solution is also available.

Lünendonk: The central data pool enables the right master data to be made available in the various corporate units simultaneously...

Braun: Yes. This is the sole data source and ensures that the data is standardized. Naturally, it is then used in many different places. For this to work, we need a governance model – in other words, clearly defined management of the master data – alongside the technological solution. This approach also includes an access concept: For example, bank or credit card details are typically information for the financial department and should not be accessible to the marketing department.

Lünendonk: Managing master data remains an important task for companies, even after they complete their transformation project. What are the key factors here?

Braun: Companies must keep their master data constantly up to date. People move house, have children, get divorced, grow older, and die. Master data must be changed accordingly. Master data that is not continually maintained loses its value or may even ultimately be counterproductive – for example, if particular information reaches the wrong recipient. A company therefore has to constantly review its master data. This entails providing the right resources for the purpose. Many individuals may be required to maintain customer data, depending on the number of data records involved.

Lünendonk: How can data maintenance be organized effectively?

Braun: What is needed is a clearly defined process, specifying how the data is handled. In addition, there should be a person responsible for the process who steers this process – from creating the data to maintaining it right through to deletion. Some companies set up a dedicated department for maintaining master data. At many companies, responsibility is also shared. The individuals responsible for master data relating to articles and suppliers are usually from the purchasing department while those responsible for customer master data are usually from marketing.

Lünendonk: Let's assume the company has entered the omnichannel world and that it also has a well-organized master data process. Can the system then be expanded to include future functions that are currently unforeseeable?

Rochlitzer: There are two distinct dimensions here. When companies expand geographically, they usually transfer their existing business model – stationary retailing, online retailing, or whatever – to a different region. The processes and data structures involved are in principle the same, just in another region and in larger volumes. Being able to expand in this way does not usually pose major problems.

Lünendonk: And the second dimension?

Rochlitzer: The second dimension relates to expanding the company's business segment – for example, if a fashion company wants to include furniture in its assortment. Retail companies with comparatively old or home-grown software often run into problems in cases of this kind because they are unable to expand their system to include new product categories. Companies with a clothing-specific master data model cannot readily support furniture. Here, it is worth investing in broad-based software such as the new SAP S/4 HANA Retail for merchandise management solution. This software offers the option of creating a new category, enabling a totally new assortment to be set up.

Claassen: From a strategic point of view, however, it should be remembered that we are in the middle of a major technology-driven innovation cycle that will continue to bring unforeseeable changes. I don't think it makes sense to look ahead further than three to five years. This continuous change is here to stay, and so we have to continually adapt or revamp our systems. Naturally, that also applies to master data management. So it makes sense to stay very close to the standard solution.

Lünendonk: If you were to hazard a look ahead, which trend would you underscore?

Claassen: Well, there's the trend toward verticalization, for example. Ten years ago, manufacturers generally used the retail sector as a gatekeeper to reach end consumers. Today, almost all industries also operate in the end consumer business, whether through e commerce websites or their own stores. On the other hand, retailers are establishing their own brands and assuming manufacturers' functions.

Lünendonk: How does this verticalization impact on master data?

Claassen: Let's take the example of a pair of jeans. Retailers can think about designing distinctive individual product components for their own brands – by using specific buttons, a particular wash, something really special. They then have to include these features in their master data. In the past, all they needed to know was whether a product was in stock. In the future, they will have to enter the structure of the product with all the relevant components in the master data.

Or looking a little further ahead: In the future, retailers and manufacturers will again produce goods close to the sales markets, or even manufacture highly customized products in stores – in the way Adidas and Nike, for example, are planning to use a 3D printer to manufacturer personalized shoes. To serve their customers, retailers must have the necessary materials in stock. And to achieve this, they require information that used to be totally irrelevant in stationary retailing. They are no longer dealing with a classic article structure. Their master data must now also incorporate the raw materials and all other product ingredients.

SPECIALIST ARTICLE

Digital transformation requires consistent master data

By Patrick Braun, Dr. André Claassen, and Frank Rochlitzer, consultants at KPS

Master data management is a topic that is underestimated in many areas, but its importance is currently on the rise, particularly in the retail sector. It is a key component in successful digital transformations.

Imagine if computers could calculate the best prices. This is an idea that fascinates many retailers. And it is now technologically feasible. Leveraging sales data, systems can predict how demand and the product life cycle are likely to develop and recommend a new price on this basis. And what about creating made-to-measure prices for specific customers based on their purchasing history?

Dynamic pricing is just one example of the new options being opened up by big data and real-time analyses. But to reach this point, most companies must first undertake a digital transformation, which often entails rebuilding their retailing platform from the ground up. In many cases, one aspect continues to receive too little attention – master data management. At the end of the day, if the analyses and evaluation tools are to do their job, the master data underpinning them must be correct. Otherwise, there is the danger of the system making the wrong recommendations, whether for pricing or other important decisions. This can result in e-mails for the latest premium baby food promotion accidentally landing in the inbox of single retirees, for example. Gaffes of this kind not only annoy the individuals affected, they can also cause major reputational damage if they become public.

DIGITIZATION PRESENTS NEW DATA REQUIREMENTS

Digitization raises the bar when it comes to consistent master data. In the past, people were the ones who analyzed data, drew conclusions, and took decisions. Today, mathematical models handle these functions. But even the best mathematical procedure will not get you far if the data basis is incorrect. And this is becoming increasingly challenging. Many retailers already have multi-channel capability, engaging their customers via various channels, both online and at bricks-and-mortar stores. A standardized, constantly up-to-date data basis is a basic prerequisite for serving these channels consistently. And this is all the more true when companies decide to take the next step in digitization and achieve omnichannel capability.

By making this move, retailers additionally integrate personal data into their IT system. Now they are not only able to serve their customers across channels, but also to analyze and support them individually. And it makes no difference whether a customer contacts the company via a store, a call center, social media, or some other touchpoint. Omnichannel involves the total synchronization of all transactions involving goods and customers – in real time.

This, coupled with organized master data, enables companies to engage their customers consistently across all channels and offer them made-to-measure prices and availabilities.

The appeal here lies in linking the transaction data with the master data. For example, customer transactions can be used to determine the number, volume, or even the specific product groups of purchases over a given period. The system can use transaction data of this kind to determine customer loyalty and associate it with a discount of the following kind, for example: "Anyone who shops at our store ten times is a loyal customer and gets a five percent discount." Based on this model, the system can also assign specific statuses to customers, managing them as first-timers, regulars, or VIPs.

In addition to all the substantive arguments, this gives rise to an operational imperative to harmonize master data. Advances in information technology are now forcing companies to tackle this issue – an issue that many companies have preferred to put off till later.

STANDARDIZED MASTER DATA – ANY TIME, ANYWHERE

Right now, one technological development is making master data an even hotter topic. Since October 2016, a new software solution has been available from SAP – SAP S/4 HANA Retail for merchandise management. This new solution for the first time enables all the key demands placed on a digital business model by customers, vendors, and partners to be supported on the basis of standard software. For many companies intending to implement digital transformation projects or already operating in the new digital world, the new SAP software will be the solution of choice. But deploying the software depends on one key factor – standardized and organized master data.

From a technological perspective, there is one main challenge that must be mastered. The system must provide real-time access to the right, error-free master data at various locations within the company. Until now, the classic approach has been to ensure data standardization through replication or technological comparisons. However, this results in parallel data repositories, containing data that, while standardized, is redundant. In the omnichannel world, this approach is soon stretched to its limits. The influx of information from the various channels sends data volumes skyrocketing making it impossible to store and manage data consistently and redundantly in real time.

The obvious solution is to tear down parallel data silos and replace them with one data repository that all the various departments can access. This means master data now exists only once and is made available for the various application and departmental views from a single location. In other words, there is only one original data pool, which requires no replication mechanisms or data redundancy. As a result, the system is considerably faster and far less prone to error.

This is where the SAP software comes into play. The core SAP S/4 HANA Retail for merchandise management product is the first to provide real-time support for purchasing, sales, and logistics processes based on a standardized data pool – a technological quantum leap. With this new product, software vendor SAP has totally revamped and vastly simplified its range of applications.

ENSURING THE QUALITY OF MASTER DATA

But if companies are to operate successfully in the digital world, a technological master data solution alone is not enough. The even greater challenge lies in harmonizing the content of the data pool and keeping it free of errors – ensuring the quality of the master data.

This begins with very basic considerations in accordance with the company's strategy. During a transformation project, essential processes such as purchasing and sales are redesigned and must be supported by the appropriate master data. The key question is therefore: "Which information do we need for the individual process steps to execute this process and automate it, if possible?"

The specific information that is ultimately required can vary considerably from company to company. Some retailers may wish to leverage cross-selling potential. They are interested, for example, in an automatically generated list of suggestions and must be able to evaluate which customers recently bought which products. Other retailers find it far more important to offer a high level of service to a particular customer in a particular area.

Once it is clear which master data is required, a particularly critical project phase follows. The existing master data must be transferred to the new system. This initially involves checking the legacy data to determine which remains current, which contains errors, and which is still needed. The situation is comparable to moving house. Anyone who has lived in the same place for ten years piles up a lot of stuff in the basement. The question is: Should it be moved to the new apartment?

It does not take long for large retail companies to accumulate several million master data records, which must be checked. In some cases, it is necessary to correct or reject more than half of the data records. And companies repeatedly face the following question: Should we take this old "packing case" with us and check the data inside it? Or should we leave it where it is and make a clean break? A clean break of this kind can mean transferring only the data of customers the company has actively engaged with in the past three years and whose addresses are most likely correct.

The first step in quality assurance is therefore to avoid transferring any superfluous or incorrect data to the new system. Another challenge is preventing errors when migrating the data. For example, if information in the legacy system is in fields that do not exist in the new system, corresponding adjustments are necessary. This is also a challenging task that requires multiple test runs prior to going live.

And the issue of master data does not go away once the project is complete. The data pool must be continually updated and kept free of errors so that the quality of the analyses and evaluations is maintained, and the benefits of digitization are not lost.

Retail goes through various stages of digital transformation, from simple internet platforms to multi-channel concepts right through to all-embracing omnichannel approaches. The issue of master data plays a central role in digitization, and insufficient consideration is often given to the demands this transformation places on master data. To operate successfully in a digital world, the individuals responsible for master data management processes must be clearly defined. There must be a corresponding technological solution capable of meeting the requirements of all corporate units in real time. And processes and technology must be stay flexible if it is to meet increasingly complex requirements.

Companies that have recognized this and are already taking appropriate steps are better equipped for the future and will reap the practical benefits of digitization.

COMPANY PROFILE

KPS is the leader in transformation consulting in retail in the areas of merchandise management, e-commerce, and digital customer management (CxM). The company offers strategy, process, and technology consulting, with long-standing implementation expertise right through to 24/7 application management.

Clients such as Lidl, Spar, Coop, Hugo Boss, Escada, Ralph Lauren, Delvaux, Fressnapf, SportScheck, Valora, Top-Toy, dodenhof, and Porta benefit from the consultants' industry and project experience, particularly in omnichannel and digital transformation projects. With the proprietary KPS Rapid Transformation methodology, they cut project turnaround times by up to 40 percent and set new standards in efficiency and transparency.

Founded in 2000, KPS employs about 800 consultants at its corporate headquarters in Munich, its five additional locations throughout Germany, and its branch offices in Denmark, Austria, the Netherlands, Switzerland, and the US.

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COMPANY PROFILE

Lünendonk GmbH

Lünendonk GmbH, Gesellschaft für Information und Kommunikation (Mindelheim), researches and advises companies across Europe in the information technology, consulting and services segments. The Lünendonk concept „competence" provides independent market research, market analysis and market consulting from a single source. Since 1983, Lünendonk annually provides the well-known and valued Lünendonk®-lists and studies as an important market barometer.

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ÜBER LÜNENDONK

Seit 1983 ist die Lünendonk GmbH spezialisiert auf systematische Marktforschung, Branchen- und Unternehmensanalysen sowie Marktberatung für Informationstechnik-, Beratungs- und weitere hoch qualifizierte Dienstleistungsunternehmen. Der Geschäftsbereich Marktforschung betreut die seit Jahrzehnten als Marktbarometer geltenden Lünendonk®-Listen und -Studien sowie das gesamte Marktbeobachtungsprogramm. Die Lünendonk®-Studien gehören als Teil des Leistungsportfolios der Lünendonk GmbH zum „Strategic Data Research" (SDR). In Verbindung mit den Leistungen in den Portfolio-Elementen „Strategic Roadmap Requirements" (SRR) und „Strategic Transformation Services" (STS) ist die Lünendonk GmbH in der Lage, ihre Kunden von der Entwicklung strategischer Fragen über die Gewinnung und Analyse der erforderlichen Informationen bis hin zur Aktivierung der Ergebnisse im operativen Tagesgeschäft zu unterstützen.

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