# Organizational Culture & Customer Relationships in a Servitization Context

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# ABSTRACT

This thesis presents qualitative research on servitization within SMEs. We have investigated the relationship between Organizational Culture and the degree of Servitization. We also investigated the relationship between Customer Relationships and the degree of Servitization. A literature study revealed that an adhocracy culture seems to be the best suitable culture for companies that servitize. Literature also shows that intimate Customer Relationships are needed to achieve a high level of servitization. The results of interviews in eighteen SMEs provide support for these theories.

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#### **Keywords**

Servitization, Organizational Culture, Customer Relationship, Competing Values Model, Service Continuum

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# **1. INTRODUCTION**

#### 1.1 Servitization

Businesses are all about adding value. At the beginning of the 20<sup>th</sup> century value was added purely through manufacturing products, but in the past couple of decades adding value shifted from 'just manufacturing' to 'manufacturing including services', in another word: Servitization. (Vandermerwe & Rada, 1989) The definition of Servitization used in this thesis is formulated by Neely: 'the innovation of organization's capabilities and processes to better create mutual value through a shift from selling products to selling Product-Service Systems'. (Neely, 2008)

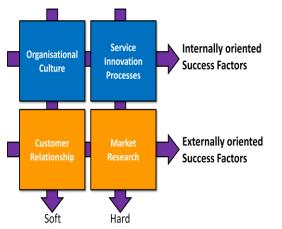
## 1.2 Adding value

Firms try to create a sustainable competitive advantage, but it is difficult to stand out as a company with 'just a product'. (Bowen & Ford, 2002) Therefore companies should try to create this competitive advantage through adding multiple services. As stated previously businesses are all about adding value: an important step in the process of adding value is gaining revenues. Servitization is a way to gain more revenues by developing customer loyalty trough services. In other words: you can sell your product once to your customer and after the transaction never see the customer again, or you can build up a relation with the customer by helping him with his design till the disposal of his product and help him with his next product and so forth. The second option is a perfect example of servitization and is recommendable when a company is reaching for higher revenues.

According to Neely (2008) there is a customer need for services that complement and supplement the products, what gives us another reason for servitization. And these services give a good reason for higher margins on the total packages, because integrated products and services are more valuable to customers then lose products and services.

Apart from the revenues is servitization a concept where companies are able to make better decisions, because of their customer intimacy. The more a company knows about their customer, the better decisions they can make within almost every business department. (Windahl & Lakemond, 2006)

Servitization needs to end up in a co-production relationship and this process can be initiated by customer friendly behavior, which goes in an upward trend with customer loyalty. Customer friendliness initiates a co-production relationship and a coproduction relationship gives the idea of customer friendliness. (Mattila, 1999)



**1.3 Service Science Factory** 

A project on servitization at the Service Science Factory, part of Maastricht University, resulted in a model of four important characteristics, which are: Organizational Culture, Customer Relationship, Service Innovation Processes and Market Research. (Figure 1) The last two are categorized as 'hard' characteristics of servitization and are no part of this thesis. The first two, Organizational Culture and Customer Relationship, are 'soft' characteristics and will be the subject of this research.

# **1.4 Research Objectives**

This research started off with the aim at a theoretic part and a statistical analysis of this theory, but because the sample of companies decreased from 30 to 10 that was not an option anymore. Another good reason to let the statistical analysis pass is that the units of analysis, the companies, are from very different industries and therefore can't be compared. A steel company with only a 10% degree of servitization can be seen as an outstanding performance in an industry where it is all about cost efficiency. But in an industry where it is all about services and where manufacturing isn't even a present in its vocabulary almost every company has 100% servitization. But this shouldn't indicate that they are doing more with servitization than the steel company. So you might say that this research made a slight change of course, because now relationships will be found through qualitative research from the interviews instead of some data from the questionnaires.

# 2. RESEARCH

# 2.1 Research Question

Our research aims at investigating the relationships between the above-mentioned soft characteristics of servitization and the degree of servitization, i.e., Organizational Culture and Customer Relationships. The main research question is as follows:

What is the relationship between Organizational Culture and intensity of Customer Relationship on one hand and the degree of Servitization of the company on the other hand?

# 2.2 Approach

The first part of this research consists of a literature study on the relevance of Organizational Culture and Customer Relationships for Servitization.

The second part of this research is empirical research. We will conduct structured interviews with the CEOs of a number of SMEs in the Province of Limburg. A list of questions has been compiled by SSF and was given to the participants prior to the interviews, giving the interviewees the opportunity to prepare for the interviews. The interviews are conducted at the premises of the company and are recorded and transcribed.

For the Organizational Culture, we use the model of Cameron & Quinn (2006). During the interviews we discuss the Organizational Culture, the Customer Relationships and the degree of Servitization. We look for the best practices, i.e., the best results in terms of the degree of Servitization. For the Customer Relationships we use self-given rate of customer intimacy. The interviews are used to learn more about the background of the scores.

Figure 1: 4 characteristics of servitization

# 3. ORGANIZATIONAL CULTURE AND SERVITIZATION

## 3.1 Definition

Organizational culture is defined by Ravasi and Schultz (2006) as a set of shared assumptions that guide what happens in organizations by defining appropriate behavior for various situations. But this definition is not the only correct definition of organizational culture. Multiple definitions try to catch all variables within the organization like history, product, manager style, national culture, etc. The definitions of organizational culture will always be arguable, but this definition of Ravasi and Schultz seems simple and not specific and therefore useful.



#### **Figure 2 Competing Values Framework**

#### **3.2 Competing Values Framework**

Cameron & Quinn (2006) developed a model to categorize companies. This model was developed with the help of the Competing Values Framework, created by Quinn & Rohrbaugh (1983). (Figure 2) The Competing Values Framework categorizes four types of organizational culture, which are: Collaborate, Create, Control and Compete. To create a servitization-friendly environment it is important to have a flexible culture. (Wijbenga, 2010) This indicates that the two cultures at the top of the Competing Values Framework, Collaborate and Create, are most suitable for Servitization.

Figure 3 shows how four company culture categories can be defined: Clan, Adhocracy, Hierarchy and Market. (Cameron & Quinn, 2006) These categories differ with respect to structure (stable, flexible) and focus (intern, extern). The next subsections discuss the suitability of companies within the four organizational culture categories for servitization.

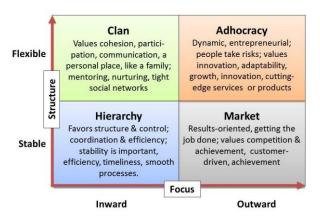


Figure 3: Categorized cultures

#### 3.2.1 Adhocracy oriented culture

An adhocracy oriented culture is probably the most suitable culture for a business with a high degree of servitization. First, because the adhocracy oriented culture is flexible: it reacts fast in a changing environment. A company with an adhocracy culture can adapt its own agenda to its customer's agenda. Adhocracy cultures are focused on external factors. An adhocracy culture wants to know what product design its customer wants, how their business is developing and where they can help in the process. Therefore relationships with the external factors play an essential role in Servitization. (Windahl & Lakemond, 2006)

#### 3.2.2 Clan oriented culture

A clan oriented culture takes a second place in suitable cultures for servitization. Like adhocracy, clan oriented cultures are flexible. A clan oriented culture is however internally focused. They are lacking of an outward focus and limiting knowledge about the needs and requirements of their customers. A clan oriented culture tries to create a business based on its own strengths and expertise rather than what the market needs.

#### 3.2.3 Market oriented culture

The third most suitable culture in a service context is the market oriented culture. Market oriented cultures with their external focus are expected to be customer-driven. They are however less flexible.

#### 3.2.4 Hierarchically oriented culture

The hierarchically oriented culture is less suitable for servitization. It is internally focused and rigid. This culture is suitable for a manufacturing company benefiting from operational excellence.

#### **3.3** Service culture

A service culture is needed in a service-oriented business. (Mattila, 1999) A service culture differs from a production culture. Therefore, servitization requires a shift in mindset of management and employees (Wijbenga, 2010). Even service departments of manufacturing companies lack of a servicedominant mindset. Where the service department of a manufacturing company should actually differ in culture from the production department, they are influenced by the rest of the company and ignore the fact that the service department should have a service-dominant mindset. In this service-dominant mindset the focus lies on integration of products and services and co-creation between supplier and customer instead of maintaining low costs (Vargo & Lusch, 2008). Further, besides mindset of employees in the company, also the mindset of its suppliers and customers of the company needs to be changed. (Vladimirova et al, 2011).

## **3.4** Need for change

Most production companies start out with a production culture. (Lay, 2014) Niche production companies need to innovate due to inability to compete on price or due to new customer demands. (Gebauer et al., 2006) Companies that operate on massive scale and have a competitive advantage on price do not necessarily have this incentive. (Lay, 2014) Generally, the niche company that decided to servitize has to undergo a rigorous change of culture. Company A, a company who operates in a niche market and has been visited in the context of the interviews, told me they started with servitization primarily because of the 'noose around their neck'. The economic crisis of 2008 caused a decline in revenues of over 70%, which meant they needed to act on it. Company A changed their processes and their culture successfully in a business where services would be more valued and now they are running and breathing again.

# 4. CUSTOMER RELATIONSHIP AND SERVITIZATION

## 4.1 'Good relationship'

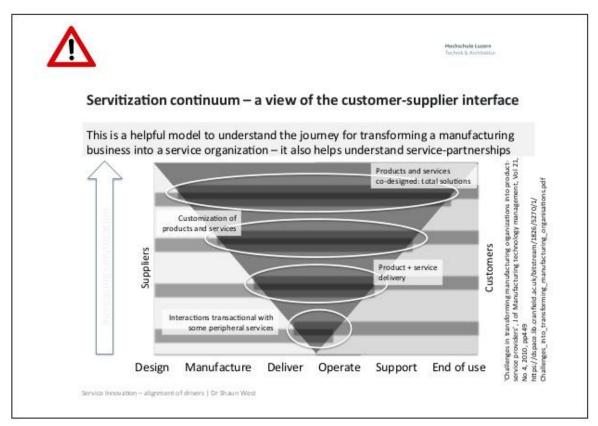
According to Windahl & Lakemond (2006) relationships with the external network play an essential role in servitization. Therefore, a thorough analysis of what constitutes business relationships is needed (Lambert, 1996) The study of Lambert showed that only 2 out of 18 'good' relationships turned out to deserve that predicate. He also identified relationships that weren't partnerships at all. A 'good' relationship between companies is more than doing business over a long period of time. It has to involve joint commitment or joint operations. Managers should evaluate their customer relationships more properly. (Lambert, 1996)

### 4.2 Understanding the customer

To improve on customer relationships, companies need to understand their current relationship. Servitization requires a more intimate relationship. The relation between a business and its customer should reach a level where the front employee and the customer end up in a co-production relationship. (Bowen and Ford, 2002) For example, Company B claimed in the conducted interviews that when they did more with the customer relationships, they would have gained higher revenues. It shows that it really could be that simple.

# 4.3 Service continuum

Figure 4 shows the service continuum. (Martinez et al., 2010) It suggests how intense the relationship between supplier and customer should be to create a high level of servitization. The level of servitization will be low, when supplier and customer only interact during the transaction. Higher level of servitization requires customer-supplier interactions during the whole lifecycle of the product, from cradle till the disposal of the product.



**Figure 4: Servitization Continuum** 

# 5. ORGANIZATIONAL CULTURE AND SERVITIZATION

#### 5.1 Results

During our research we have conducted interviews with eighteen companies. Some of these companies have selfassessed their degree of servitization and Culture Organization Category. The degree of servitization is defined as the percentage of the revenue stream that originates from services. The companies have also assessed their Organizational Culture by selecting one of the classes of our model. The results from the questionnaire are rolled out in Table 1.

From the interviews we have learned that a comparison of companies based on these numbers is difficult. For example a steel company with 10% degree of servitization is really servitizised, because the steel industry is all about cost efficiency. But a mortgagor with a 90% degree servitization might be one of the lowest percentages in its industry. Another important factor is that the companies where interviews have been conducted had a culture that suits the degree of servitization they are reaching for. But most of the companies were not yet on the level of servitization they see for themselves in the future.

% of revenue gained through Services	Category
10%	Clan
10%	Clan
15%	Adhocracy
50%	Market
60%	Market
70%	Adhocracy
100%	Adhocracy
100%	Clan
	through Services 10% 10% 15% 50% 60% 70% 100%

Table 1: Results Questionnaire

Furthermore, every interviewed company is unique in their products or their business model. The interviewees indicated that it is difficult to differentiate between revenues from services and products. Sometimes services and products are integrated, but still operating in different departments. It is difficult for these companies to put a revenue percentage on these different departments. And it is even more difficult to combine these percentages and decide on a revenue percentage gained through services.

Interviewees also indicated that classification of the organizational culture turns out to be difficult. They see a culture in their company where aspects of different cultures are combined. The visited companies all notified the presence of a single culture in their small companies, but a larger company can face the problem of multiple cultures in a single company.

#### 5.2 Competing Values Model

To find out the differences in the various organizational cultures all the four cultures of the Competing Values Model (Cameron & Quinn, 2006) have been researched in combination with the degree of servitization these companies pointed out.

#### 5.2.1 Adhocracy oriented culture

An adhocracy oriented culture is a really dynamic culture and has as little rules as possible. Bureaucratic processes can be evaded within an adhocracy oriented culture. Without rules it is easier to think out of the box. One of the interviewed companies, Company 1 indicated they had an adhocracy culture and a servitization degree of 100%. They gave the following example. Company 1 renovates houses. Normally Company 1 uses brokers to sell these renovated houses. Brokers have a different vision as Company 1 and therefore sell the house with less enthusiasm. Some brokers already couldn't sell this house. maybe they were unlucky, maybe they weren't enthusiastic enough. But at some point Company 1 asked the original owner to sell the house. He sold the house the same night. According to Company 1 this happened because, in contrast to the brokers, he believed the vision of Company 1. This example wouldn't have happened in a company with a lot of bureaucracy, because they have to play by their own rules and can't act out-of-thebox.

Another company, Company B, gave an example on the importance of flexibility. Company B has a lot to do with data hosting. The hosting of this data is vital for their customers, but sometimes software problems arise. This can happen during the day and be solved directly, but sometimes these problems arise during the night. And if Company B only trades within The Netherlands this problem could be solved first thing in the morning. But Company B also trades in Australia and on the American continent. Therefore problems that arise during the night are a problem during the day in different time zones and need to be solved directly. This means an employee has to be called out of bed and solve the problem in the context of a 24/7 economy. This kind of service demands extreme flexibility from a company.

#### 5.2.2 Clan oriented culture

A clan oriented culture feels like an extended family. That is the feeling inside the company, but also the feeling they want to give to their customers. For example Company 2 knows that they are a small company in an enormous market. This underlines the need to distinguish them from their competitors. Most companies in their industry are pure manufacturing companies, focusing on cost efficiency. Company 2 decided to maintain string relationships with their customers, hoping they will come back when the customer needs a new product or a repair on a sold product. Company 2 only gains 10% of their revenues out of services, which is a lot in their industry. Another focus point is that they try to care about the sales their customers make. Because you can't be a supplier when your customer doesn't have any consumers. Every aspect makes it really nurturing, exactly what a clan oriented culture describes. Where most companies in their industry are all about costs and probably having a culture where servitization will not grow, Company 2 has a well-fed soil to build a culture for servitization.

#### 5.2.3 Market oriented culture

A market oriented culture is about 'getting the job done' and values competition. An interesting example of a market oriented culture is Company 3. This company started off as a very flexible service oriented business. They could have been in the clan oriented culture box when they were a start-up. But they did the opposite of servitization: they started a product line. And in the interviews the director told that when they started with these products, they needed to become more disciplined and conservative. It is interesting to see how this need for change of culture also works the other way around. Another interesting change they had to make was to shift from internal focus to external focus. With their outstanding expertise they were able to deliver excellent services: the customers came to them because of their expertise. But with these new products Company 3 had to shift from internal expertise to external demands.

Because of this new product line Company 3 needed to start with a marketing department. There was a need to become more visible. With the help of a university they are now building a successful marketing department and create a more and more externally focused culture.

#### 5.2.4 *Hierarchically oriented culture*

None of the companies in this research stated they have a hierarchically oriented culture. This is probably due to the fact that companies were selected on their link to servitization. This confirms that the hierarchically oriented culture is not suitable for servitization. Another reason for the lack of hierarchically oriented business is that in this research there were only interviews conducted at SME's. Small companies on average have an informal, non-hierarchical structure. (Levi & Powell, 1998)

# 6. CUSTOMER RELATIONSHIP AND SERVITIZATION

#### 6.1 Results

During our research we have conducted interviews with eighteen companies. Some of these companies have self-assessed their degree of servitization and Customer Relationships. The degree of servitization is defined as the percentage of the revenue stream that originates from services. The companies have assessed the intensity of customer relationship on a scale from 1 to 10. The results of the questionnaire with respect to customer relationship are presented in Table 2.

Company	% of Revenue gained through Services	Intensity
Company 2	10%	9
Company 8	10%	8
Company 7	15%	8
Company 5	50%	9
Company 3	60%	7
Company 4	70%	9
Company 1	100%	8
Company 9	100%	6

#### Table 2: Results questionnaire

#### 6.2 Good relationships

According to the theory a good relationship for a servitizising business consists of joint commitment or joint activities, what needs to end up in a co-production relationship.

Company 4 gave an example on how some relationships seemed to be good, but actually were not. Company 4 spends a lot of time sharing their vision to suppliers who were in direct contact with the customers of Company 4. They spend a lot of time and money to convince the suppliers of their servitizising vision, i.e., making money on the long-term and changing the entire industry in The Netherlands. But after a while Company 4 realized that their suppliers did not care about this thinking out of the box, changing an industry, they only cared about how much money they would make the next day. And you might think: 'Why does it matter if the supplier has the same vision or not?' Well, it has everything to do with the enthusiasm you can bring the idea to the customer. If you are not convinced of the concept of this start-up, Company 4, then this company can't create a flourishing business. This means that when your relationship is not intense enough to come to the same vision, you will not be able to servitizise optimally.

Another example has been given by Company 5. Company 5 does everything from design till marketing of the product. They believe that outsourcing parts of the process would harm their business, due to lack of enthusiasm for the product. Although their performance is weak at some points, outsourcing would cause more damage. It is difficult to create the same passion for the product in another company. In the context of servitization this means you should have the same vision as your customer/supplier and if the relationship is not intense enough you could better do it yourself.

When you are in a service business your company needs to come up with solutions for encountered problems. During the interviews, multiple companies pointed out that customers come to them without really knowing what kind of solution they want. Company 6, said that even when customers make up their mind, you still need to sit down with your customer over and over again, because they change their mind during the process. This is exactly where servitization is all about, walking hand in hand with your customer through the process and really getting to know the needs of the customer.

Knowing customer needs also have a lot to do with expertise. Multiple interviewees stated that the knowledge difference between their own company and their customers is enormous, where the interviewees were the companies with the expertise. Therefore customers really need to trust the interviewed companies on the solutions they come up with. This indicates that delivering expertise is difficult when an intense relationship is not present. Delivering services in the form of expertise seems to the interviewees an important part of servitization and need a 'good relationship'.

Until a couple of years ago, Company 7, operating in the transport industry, delivered only a range of products. Stimulated by the economic crisis, they accelerated their innovations and instead of only offering the data solutions their products could solve, they also started offering custom-made data solutions to help a broader area of potential clients. They also started hosting the data of the customers and added a lot of support features in their service package. Using the 'Service Continuum' model of Martinez et al, 2010, we see how Company 7 shifted from 'Products + Service delivery' to 'Products + Services co-designed: total solutions'. Company 7 changed its Customer Relationship, which created more sustainable revenue streams.

### 7. CONCLUSION

#### 7.1 Conclusion

This study used self-assessment and interviews to gain more insight in the relationship of the Cultural Organization and Customer Relationship on the one hand and the degree of servitization on the other. According to the theory a service culture truly differs from a manufacturing culture. Therefore mindsets need to be changed when shifting from pure manufacturing to adding a service package or totally integrating services with products.

The Competing Values Model describes four different cultures which can be ranked in the context of servitization. The most important factor for being able to deliver services is 'flexibility'. The second most important factor is the 'outward focus' of a company. It would be better for a service company to be focused outward then inward. The academic literature most definitely finds a relation between Organizational Culture and the degree of Servitization. Because of the theoretical outcomes of flexibility and direction of focus we can rank the various cultures as follows: Adhocracy, Clan, Market, Hierarchically.

According to the theory is a 'good relationship' more than doing business over a long period of time: it should involve joint commitment or joint operations. Therefore managers should evaluate their relationships. Because when you don't know what the customer needs you can't get the relationship or the revenues to another level. Companies should get to know their customer's needs and their relationship should end up in a co-production relationship. Companies, who are in the Service Continuum model at the bottom, should get from 'Transactional interactions', towards 'Products and services co-designed: total solutions'. Bringing the degree of servitization to a higher level is easier with an intense relationship with the customer.

Literature learns that Customer Relationship Management is important when companies want to servitize. Literature also learns that companies do not always assess the Customer Relationship always correctly. More intimate Customer Relationship is needed while going up in the Service Continuum Model.

Looking at the results of the questionnaire it seems that there is no relationship between culture and degree of servitization. Combined with the results of the interviews, these statistics turn out to be biased because companies from different industries can't be compared. Next to that the companies are implementing the culture they need for the degree of servitization they see for themselves in the future. This means they already have the right culture, but not the degree of servitization they are aiming for. That is another reason why these statistics can't be used to make claims.

Looking at the four cultures of the Competing Values Model and the outcomes from the interviews, we find support for the theory that adhocracy oriented culture is the best suitable culture for a servitizising company. The mentioned examples point out that bureaucracy is disastrous for a service oriented business that needs to act out-of-the-box when the time is right.

The results of the questionnaire do not support the theory that Customer Relationships are needed to successfully servitize. The interviews however give an interesting perspective of the role of Customer Relationships and servitizising businesses. For one, when a company wants an intense relationship with its customer they should find each other in each other's vision. Because if you work together on the same project, but not with the same vision, one will not be as enthusiastic as the other. Hence, it is sometimes better to do it in house then doing it together with suppliers or customers. With the right vision you end up with enthusiast employees who deliver something better then when you outsource things to people with the best expertise. If you are able to communicate the right vision, then you are able to walk hand in hand with the customer. When a company is fully servitizised and it is co-designing products, it is important to be aware that customers do not always know what they want and do change their minds. Therefore the employees of a company should really get to know their customers and sit down with its customer over and over again. Because then, and only then, companies are able to build up optimal relationship of a service continuum.

# 7.2 Limits

The original idea was to conduct research and run statistical analysis on the data collected through the interviews conducted by the SSF of Maastricht University. Due to a low number of participants and poor measurement data we decided to do a qualitative analysis by reflecting on the data during interviews with the CEOs of different SMEs.

The qualitative research is also limited by the fact that these companies have been deliberately chosen for interviews because they are already servitizing. Because of this there are mostly success-stories and hardly any failures to find out what happens when you are not trying to servitizise.

Another limit to this research is that these interviews were conducted at SMEs and the outcomes can only be generalized over SMEs. The organization of implementing a servitizising culture in a large company must be even more difficult and probably needs other tools to construct a suitable culture and intense customer relationships.

#### **7.3 Recommendations further research**

It would be interesting to do a statistical analysis on this topic. The degree of servitization is based on the percentage of revenues from services. We believe that this measure differs across various sectors of industry and are difficult to compare. Hence, we need a larger sample, even larger than the initial 30 companies of this research and the companies should be compared within their own industrial sector. It is also an option to look at only one industry, so you wouldn't need dozens of companies.

To do a statistical analysis the researcher must come up with a better questionnaire than used in this research, because the used questions are not sufficient to make any claims. The different cultures need to be explained to the interviewee and the different rates of customer intimacy need some explanation to make a comparison with the interviewee's company.

#### 8. REFERENCES

Bowen, J.; Ford R.C. (2002). Managing service organizations: does having a "thing" make a difference?, Journal of Management, vol 28, number 3

Cameron, K.; Quinn R.E. (2006). Diagnosing and Changing Organizational Culture: Based on the Competing Values Framework. Beijing: China Renmin University Press.

Gebauer, H. (2006). Identifying Service Strategies in Product Manufacturing Companies by exploring Environment – Strategy Configurations. Industrial Marketing Management (37)

Lambert, D.M.; Emmelhainz, M.A.; Gardner, J.T. (1996). Developing and implementing supply chain partnerships. The international Journal of Logistics management 7 (2), 1-18

Lay, G. (2014). Servitization in Industry. Springer, page 15.

Levi, M.; Powell, P. (1998). SME Flexibility and the Rol of Information Systems. Small Business Economics. Vol. 11 Iss: 2, 183-196

Martinez, V; Bastl, M.; Kingston, J.; Evans, S. (2010). Challenges in transforming manufacturing organisations into product-service providers. Journal of Manufacturing Technology Management, Vol. 21 Iss: 4, 449 - 469

Mattila, A.S. (1999). The role of culture in the service evaluation process. Journal of service research 1 (3), 250-261

Neely, A. (2008). Exploring the financial consequences of the servitization of manufacturing. Operations management research, Vol. 1 Iss: 2, 103-118

Ravasi, D.; Schultz, M. (2006). Responding to organizational identity threats: Exploring the role of organizational culture. Academy of Management Journal (3): 433–458

Quinn, R. E.; Rohrbaugh J. (1983). A Spatial Model of Effectiveness Criteria: Towards a Competing Values Approach to Organizational Analysis. Management Science, 29(3), 363-377.

Vandermerwe, S., & Rada, J. (1988). Servitization of Business: Adding value by adding services. European Management Journal. Vol. 6 No. 4

Vargo, S.L.; Lusch R.F. (2008). Service-Dominant Logic: Continuing the Evolution. Journal of the Academy of Marketing Science 36, 1-10

Vladimirova, D.; Evans, S.; Martinez, V.; Kingston, J. (2011). Elements of Change in the Transformation towards Product Service Systems. In (8) 21-26

Windahl, C.; Lakemond, N. (2006). Developing integrated solutions: The importance of relationships within the network. Industrial Marketing Management 35 (7), 806-818