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Reframing the Outsourcing Process

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Abstract. Multiple functions and stakeholders from the buyer and the supplier are involved and affected, either directly or indirectly, by the outsourcing process and the way it is managed. These can all assign different meaning to the evaluations and decisions made during the process, which in turn may strongly influence its success. To avoid distrust and suboptimal solutions, managers need to take into consideration different stakeholders' opinions when making key outsourcing decisions. However, capturing these opinions is cumbersome, and may slow down the outsourcing process significantly. This paper proposes a segmentation approach to rationalize the inclusion of different stakeholders' opinions in outsourcing decision-making. More specifically, Bolman and Deal's four leadership frames are used to consider multiple opinions regarding a production transfer between a Norwegian manufacturer of advanced hydro-acoustic sensor systems and one of its strategic suppliers. The paper shows how a multi-frame model may bring new understanding to key outsourcing decisions, and ensure that multiple stakeholders' opinions are considered throughout the process.

Keywords: Outsourcing, production transfer, multi-frame perspective, collaborative manufacturing

1 Introduction

Multiple functions from both the buyer (the company that outsources) and the supplier (the new producer or service provider) are directly involved at different times during an outsourcing process. In addition, various other stakeholders are affected, either directly or indirectly, by the process and the way it is managed. These can all assign different meaning to the evaluations and decisions made during the process, which in turn may strongly influence the success of both the outsourcing process and future business. For example, outsourcing a successful product may make perfect sense for the senior management, due to its potential cost savings; however, for the product manager it may be seen as a lack of trust, which may influence his motivation to continue working for the company. To avoid distrust and suboptimal solutions, companies need to avoid "one size fits all" approaches, and take into consideration different stakeholders' opinions when making key decisions and communicating with stakeholders during the outsourcing process. However, capturing the multitude of opinions is cumbersome, and may slow down the outsourcing process significantly.

An often-used approach to handle heterogeneity efficiently is to group things (e.g. people, products) with similar characteristics into segments that are expected to exhibit similar behavior, and handle the segments separately instead of using one mass-approach. Seminal examples of such segmentation include market segmentation [1] and group technology [2]. We believe that the same logic can be applied in outsourcing. More specifically, we argue that key decisions in the outsourcing process may be assessed in light of the expected opinions of various stakeholder segments. Hence, the purpose of this paper is to show how multiple perspectives may bring new understanding to outsourcing decisions, and ensure that multiple stakeholders' opinions are considered efficiently throughout the process. While there are abundant ways of segmenting stakeholders, the four leadership frames by Bolman and Deal [3] are taken as a starting point, as they are widely recognized as a tool that improves understanding and promotes versatility in organizations. This framework has been used in numerous settings, from education [4] to sports [5]. However, to the best of our knowledge, it has not previously been applied to outsourcing processes. In this research, it is used to consider multiple opinions regarding a production transfer between a Norwegian manufacturer of advanced hydroacoustic sensor systems and one of its strategic suppliers.

The remainder of the paper is structured as follows. First, some theoretical background on outsourcing of production and the four frames by Bolman and Deal [3] are presented. Thereafter, the reframing case study is described. This includes research methodology, as well as empirical findings and discussions. Finally, the paper is concluded, with major contributions, limitations and suggestions for further research.

2 Theoretical background

2.1 Outsourcing of Production

The transfer of activities to other supply chains actors is generally denoted outsourcing or offshoring, depending on the ownership structure (internal or external) and target location (domestic or foreign) of the transfer [6]. Outsourcing refers to a transfer of certain responsibilities across organizational borders, whereas offshoring indicates that the responsibility is transferred to a subsidiary or supplier in a foreign location. Outsourcing has numerous stated benefits (e.g. lower factor costs, access to new materials, distribution channels and technologies and focus on core competences) which have made it a very popular strategy in many industries [7, 8]. However, it involves considerable risk and may lead to increased costs and loss of business if it is not carried out in a systematic manner [7, 9].

Several frameworks [e.g. 10, 11-13] outline different phases of the production outsourcing process. Broadly speaking, it comprises four phases: (1) Outsourcing decision; (2) supplier selection; (3) production transfer, and; (4) steady state. In the *outsourcing decision* phase, the company should decide its outsourcing policy [13]. This includes an assessment of outsourcing benefits, risks and motivators (cost, strategy, and politics), to decide whether it should continue considering possible outsourcing candidates. Thereafter, the company may proceed to the outsourcing candidate selection stage, where it identifies, evaluates and selects possible candidates (functions, products or

processes) for outsourcing [13]. In the second phase, *supplier selection*, the company carries out initial supplier qualification (if it does not keep a record of prequalified suppliers), before agreeing on measurement criteria, obtaining relevant information, making a selection and negotiating legal arrangements [12, 14]. Several of the criteria for supplier selection will depend on the geographical location of the supplier. The third phase, *production transfer*, concerns the actual relocation of manufacturing of products or components between two production facilities. It consists of three distinct stages: Transfer preparation; physical transfer, and; production start-up [10]. The final phase is the *steady state*. Here, the supplier has reached a full-scale and stable production, at targeted levels of cost and quality [10].

Each of the phases and stages in the outsourcing process entails numerous decisions. Gunasekaran et al. [15] review outsourcing decisions and relevant performance measures and metrics in pre- (i.e., outsourcing decision and supplier selection), during- (i.e. production transfer) and post-outsourcing (i.e. steady state) stages. They distinguish between strategic and tactical decisions that are either financial or non-financial. Many of these are tangible and relatively easy to set goals for, anticipate and measure performance of, such as transaction costs, IT infrastructure, service performance, etc. These decisions are often made with the support of, e.g., multi-criteria decision techniques or optimization. However, a large number of decisions are classified as intangible. These may be harder to make using similar tools. Examples include degree of collaboration, teamwork, motivation of employees on the shop floor, etc. These are multi-faceted decisions that require careful yet efficient consideration of different stakeholders' opinions.

2.2 Four Leadership Frames

Bolman and Deal [3] have identified four distinct frames people view their world through, namely (1) Structural, (2) Human Resources (HR), (3) Political and (4) Symbolic. Each frame comes with a range of concepts, values and metaphors that distinguish it from the others. For instance, the four frames' metaphors for organizations are (1) factory or machine, (2) family, (3) jungle and (4) carnival, temple or theatre, respectively. The frames' conception of organizational processes are illustrated in Table 1.

While no one uses only one frame to interpret their world, people often show a preference for one or two frames. Therefore, to improve understanding and promote versatility, the frames can function as mental maps for reading and negotiating different territories – such as outsourcing decisions. For instance, a Structurally oriented management team may consider an outsourcing process as a simple realignment of roles and responsibilities to fit core competences and the business environment. By using the four frames actively, the team can comprehend other implications of the process, such as its impact on the workforce (HR), the redistribution of power between the buyer and supplier (Political) and the customers' perception of product quality when operations are carried out by a contract manufacturer (Symbolic). These may all influence the course and outcome of the process, and as such, it can improve decision-making. Further, it can aid the team in foreseeing and complying proactively with the needs and demands of stakeholders that show preference for different frames.

Table 1. Organizational processes in light of the four-frame model [adapted from 3]

	(1) Structural	(2) HR	(3) Political	(4) Symbolic
Strategic planning	Strategies to set objectives and coordinate resources	Gatherings to promote participation	Arenas to air conflicts and realign power	Ritual to signal responsibility, produce symbols, negotiate meanings
Decision making	Rational sequence to produce right decision	Open process to produce commitment	Opportunity to gain or exercise power	Ritual to confirm values and provide opportunities for bonding
Reorganizing	Realign roles and responsibilities to fit tasks and environment	Maintain balance between human needs and formal roles	Redistribute power and form new coalitions	Maintain image of accountability and responsiveness, negotiate new social order
Evaluating	Way to distribute rewards or penalties and control performance	Process for helping individuals grow and improve	Opportunity to exercise power	Occasion to play roles in shared ritual
Goal setting	Keep organization headed in right direction	Keep people involved and communication open	Provide opportunity for individuals and groups to share interests	Develop symbols and shared values
Communication	Transmit facts and information	Exchange information, needs, and feelings	Influence or manipulate others	Tell stories
Motivation	Economic incentives	Growth and self-actualization	Coercion, manipulation, seduction	Symbols and celebrations

3 Case Study: Reframing the Outsourcing Process

3.1 Research Method

In this research, we explore how the four-frame model by Bolman and Deal [3] can be used to comprehend multiple opinions in outsourcing processes, by studying a product transfer between a Norwegian manufacturer of advanced hydroacoustic sensor systems and one of its strategic suppliers. No behavior was manipulated in the actual process, making a case study approach appropriate [16].

Empirical data has been collected through a series of joint workshops with the buyer's Supply Chain management team and the supplier's senior management, as part of a collaborative management development activity. In the workshops, selected parts of the outsourcing process were discussed with respect to the four-frame model. In addition to the workshops, the management teams did a self-assessment exercise to explore how their basic mindsets compare to the four-frame model, bearing in mind that people usually show a preference for one or two of the frames. More specifically, for a set of

organizational processes (including Table 1), every participant would distribute ten points over the different frames' description of the process. More points were awarded to the frames with which the participant agreed the most. The aggregated distributions over the frames (Structural, Human Resources, Political, and Symbolic) were 37%; 34%; 13%; 16% and 44%; 38%; 8%; 10% for the buyer and supplier, respectively.

3.2 The Outsourcing Process

The studied outsourcing process was the first production transfer from the buyer to the supplier. The outsourced product consists of a sensor (core technology produced by the buyer), casing, and electronics. The sensor and electronics are soldered together and molded into the casing, before the product is tested. All products are sold in high volumes to a sole customer that replaces products frequently, which creates a yearly demand for the product. For several years, the buyer purchased the casing and electronics from two other suppliers and assembled the products itself. However, some years ago, it approached the supplier with an invitation to tender for the product's assembly operation. Today the supplier gets the sensors from the buyer, and casing and electronics from two other suppliers, and carries out the assembly and associated product testing. The buyer still carries out spot checks, ships the finished products, and maintains communication with the end customer. The outsourcing process is briefly described in Table 2. Below, some selected elements of the process are discussed to illustrate possible use of the leadership frames, as was done in workshops with the management teams.

Table 2. The outsourcing process

Phase	Main activities
Outsourcing policy	The buyer's overall decision to outsource was mainly driven by a combination of cost and strategy. The company felt a need to reduce cost, and at the same reduce its high volume production activities, as "it aims to be a 'technology company', rather than manufacturing company".
Outsourcing candidate selection	The buyer quickly arrived at the selected outsourcing candidate, as the product had significantly higher volume and lower margins than the other products offered by the company. This required higher efficiency and manufacturing-/industrialization competence than the buyer possessed.
Supplier selection	The supplier was prequalified and used to deliver electronics for the product. Today, the renowned contract manufacturer is classified as a strategic supplier by the buyer.
Transfer preparation	There was no kick-off meeting signaling the start of the outsourcing process, and a transfer plan and risk assessment had not been prepared and conducted before the transfer. The supplier participated in value stream mapping at the buyer, and sent three operators to learn the current production process. The buyer's original suppliers of housings and electronics were transferred to the supplier.
Physical transfer	Initially, it was decided that all test equipment would be moved from the buyer to the supplier. When the buyer's product team found this out, they realized that they would not be able to run spot-checks, thereby losing control over the end quality. The buyer therefore copied its test equipment and transferred the copy to the supplier.

Phase	Main activities
Prod. start-up and steady state	The contractual agreement between the buyer and supplier stated that the supplier would gradually lower the unit cost as production progressed. However, several of the supplier's process improvement suggestions were rejected without a clear justification.

Supplier selection. As pointed out in Table 2, the supplier was prequalified by the buyer, as it used to deliver electronics components for the product. Therefore, the supplier selection process mainly concerned contractual agreements between the buyer and the supplier. In the workshops, the management teams agreed that the Structural frame had been prominent in this phase. There was strong emphasis on transmitting facts and information, and formalizing conditions regarding e.g. forecasting, call-offs and delivery agreements. Several functions at the buyer (e.g. product team, purchasing and quality) were involved in the formulation of the contract's terms, to ensure conformance of end customer expectations. At the same time, both the buyer and supplier agreed that they were humble and a bit careful with each other during this phase, as they wanted to show respect and did not want to ruin their existing relationship. As such, they implicitly also had the HR frame in mind when initiating the transfer, by maintaining a balance between their relationship and formal roles. When challenged to view the phase from the Political and Symbolic perspectives, especially the buyer felt that they should have considered Political aspects more when establishing the relationship. They felt that by exercising power more, higher goals could have been set and reached, which would ultimately benefit both the buyer and supplier. The supplier, on the other hand, saw that it is important to be aware of and exercise its own power in such a constellation, and be humble but not submissive, as the parties may miss out on early opportunities for improvements due to fear of the power distribution.

Start-up and steady state. When asked to evaluate the current situation (somewhere between the start-up and steady state), the parties felt that the Structural focus in the supplier selection phase had resulted in a well-functioning relationship, with deliveries going from the supplier to the buyer at the right time, in the right quantity, and with the right quality. However, as seen in Table 2, the contractual agreement between the buyer and supplier also stated that the supplier should gradually lower the unit cost as production progressed. In this respect, the supplier experienced that several of their process improvement suggestions were rejected without a clear justification. While these rejections Structurally made sense (the buyer was afraid of altering the product performance in any direction, because the end customer was familiar with how to interpret data from the existing product), the buyer underestimated the Symbolic effect they had on stakeholders at the supplier, which experienced frustration and distrust over a lack of explanation. At the same time, the supplier did not communicate this explicitly to the buyer, due to little exerted power and the HR frame that was implicitly in play, as mentioned in the supplier selection phase above. During the research, the supplier got an explanation of why their suggestions were not taken into consideration. This was immediately understood and accepted. By looking at it from the Symbolic perspective, a lot of frustration could have been avoided if this had been communicated earlier. When the parties

discussed this issue, they saw that the Symbolic and HR perspectives could be used more frequently. Especially the buyer acknowledged that they could use multiple frames to turn everyone's attention to achievement of objectives and, in collaboration with the supplier, acclaim good experiences and learn from bad ones.

Further practice. Using the four frames generally made the parties realize that the outsourcing process could have run smoother if key issues had been discussed more proactively, in a way that captured more perspectives. As can be seen from the management teams' self-assessment, both teams show an overweight of Structural and HR traits. At the same time, they experience that many of their subordinates and stakeholders have other traits, and that these need to be taken into consideration during the outsourcing process. The parties saw that they could both exert their power to a larger degree (Political), but at the same time they need to be aware of how such actions may be interpreted through the other perspectives – especially the Symbolic frame. As mentioned in Table 2, there was no kick-off meeting to signal the start of the outsourcing process. While such a meeting could have a strong Symbolic effect in terms of signaling responsibility, it could also serve as an arena to promote participation (HR), align power (Political), and set objectives and coordinate resources (Structural) – thereby answering to different needs and opinions. To make amends for the lack of a kick-off, following the workshops the buyer sent key personnel to the supplier, to inform all employees about how the outsourced product is important to both the buyer and the end customer. Further, the buyer has categorized the supplier as one of six strategic suppliers. These are both strong symbols of their collaborative relationship, as is the collaborative management development activity that has been discussed in this paper.

4 Conclusion

This research has shown how the multi-frame model brought new understanding to some of the key decisions that were made during the outsourcing process between a Norwegian manufacturer of advanced hydroacoustic sensor systems and one of its strategic suppliers. When introduced to the model, the case companies themselves concluded that their relation was almost purely Structurally grounded, through e.g. contracts and terms of delivery. Throughout the workshops, the companies saw that the Symbolic and HR frames could increase stakeholders' feeling of ownership to the process, and that both companies could benefit from having a conscious attitude to power exertion, as described by the Political frame. As such, the managerial implications of utilizing such a framework to reframe 'traditional' outsourcing processes are evident.

There are, however, some limitations with the study. A single case study approach essentially limits the generalizability of the results. Further, only one segmentation model has been tested, on a limited part of an outsourcing process approaching completion. Moreover, the self-assessment done by the management teams showed an overweight of Structural and HR traits at both the buyer and supplier. While these arguably are 'typical' traits in, at least, Scandinavian manufacturing companies, the applicability and/or need for reframing may be less in other parts of the world or in companies with

more heterogeneous composition of people. Finally, the study does not suggest which frames are best applied at different stages of the outsourcing process, and what is the best way of applying them. Further research should include more empirical testing to improve the generalizability of the findings. This could include multiple case studies in a range of industries and countries, with a diversity in products and services, using the same and other segmentation models on all phases of the outsourcing process.

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5 References

1. Smith, W.R.: Product differentiation and market segmentation as alternative marketing strategies. *The Journal of Marketing* 3-8 (1956)
2. Burbidge, J.L.: *The introduction of group technology*. Heinemann London (1975)
3. Bolman, L.G., Deal, T.E.: *Reframing organizations*. Jossey-Bass Publishers, San Francisco (1991)
4. Thompson, D.F., Farmer, K.C., Beall, D.G., Evans, D.J., Melchert, R.B., Ross, L.A., Schmoll, B.J.: Identifying perceptions of professionalism in pharmacy using a four-frame leadership model. *American journal of pharmaceutical education* 72, (2008)
5. Scott, D.K.: A multiframe perspective of leadership and organizational climate in intercollegiate athletics. *Journal of Sport Management* 13, 298-316 (1999)
6. Monczka, R.M., Markham, W.J., Carter, J., Blascovich, J., Slaughter, T.: *Outsourcing strategically for sustainable competitive advantage*. CAPS (2005)
7. Kinkel, S., Maloca, S.: Drivers and antecedents of manufacturing offshoring and backshoring—A German perspective. *J Purch Supply Manag* 15, 154-165 (2009)
8. Alex J. Ruiz-Torres, F.M.: Outsourcing decision in manufacturing supply chains considering production failure and operating costs. *Int Journal of Integrated Supp* 4, 141-158 (2008)
9. Aron, R., Singh, J.V.: Getting offshoring right. *Harv. Bus. Rev.* 83, 135 (2005)
10. Fredriksson, A., Wänström, C., Johansson, M.I., Medbo, L.: A structured procedure for materials planning during production transfer. *Prod Plan Control* 1-15 (2015)
11. WHO: WHO Technical Report Series 961: WHO Expert Committee on Specifications for Pharmaceutical Preparations, Forty-fifth Report. (2011)
12. Momme, J., Hvolby, H.-H.: An outsourcing framework: action research in the heavy industry sector. *European Journal of Purchasing & Supply Management* 8, 185-196 (2002)
13. Kremic, T., Tukul, O.I.: Assisting public organisations in their outsourcing endeavours: a decision support model. *Int Journal of Integrated Supp* 2, 383-406 (2006)
14. Cousins, P., Lamming, R., Lawson, B., Squire, B.: *Strategic supply management: principles, theories and practice*. Pearson Education (2008)
15. Gunasekaran, A., Irani, Z., Choy, K.-L., Filippi, L., Papadopoulos, T.: Performance measures and metrics in outsourcing decisions: A review for research and applications. *Int J Prod Econ* 161, 153-166 (2015)
16. Yin, R.K.: *Case study research: Design and methods*. Sage publications (2013)