GETTING READY FOR E-MOBILITY: INTEGRATING SALES FOR A CUSTOMER CENTRIC ORGANISATIONAL DESIGN APPROACH

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ABSTRACT

For over a century, the literature has been proclaiming the need for companies to adapt because of fast-changing and turbulent times. Today it is digitisation in general, and e-mobility in particular, that are creating a buzz in the automotive industry. There are many recommendations for companies on what to do and on how to act fast, and one of these is to become more customer-centric.

Despite the multitude of recommendations as to how to become more customer-centric, and how an organisation should adapt to the new mobility challenges, there is as yet no combined suggestion for how an automotive manufacturer should do this. Existing business models and organisational readiness indices from theory and practice continue to fail on two particular fronts: 1) in general they display an 'inside out' view that is not customer-centric; and 2) they are not industry specific.

These research notes show how to address both these issues by using automotive sales models as a source input for enhancing organisational design models and organisational readiness indices.

Keywords*: Customer-centricity, e-mobility, automotive, sales, organisational design, organisational transformation*

1. THEORETICAL AND EMPIRICAL BACKGROUND AND RELEVANCE

E-mobility is a fast-growing industry (Hybridcars.com, 2017; Irle, Pontes & Irle, 2017; Statista, 2017) and poses substantial challenges for automotive manufacturers and, in particular, for their sales organisations (Roland Berger Strategy Consultants & IESE Business School, 2013; Hainz et al., 2015; McKinsey, 2016; Latendorf, Kohl & Minarski, 2017).

Current e-mobility indices only consider countries (Ministry of Environment Chile & Ministry of Transport and Telecommunication Chile, 2012; Bernhart et al., 2015; Hattrup-Silberberg, 2016; IHS Markit, 2016), rather than single organisations such as car manufacturers, let alone their sales organisations. While e-mobility is increasingly a hot topic for the industry, there is limited scientific material available, that touches organisational readiness or design. E-mobility signifies substantial change for the automotive industry and how organisations structure themselves to both cope and take advantage of the technology is important. Organisational design (OD) models tend to be generic and rarely reflect industry specifics. This paper identifies alternative contemporary models such as digital readiness and maturity models to develop a new model, merged with OD models and automotive mobility strategy models, to support organisational adaption of e-mobility with a customer centric focus.

2. RESEARCH OBJECTIVES

The overall research project is the development of an e-mobility readiness framework consisting of an e-mobility organisational readiness model for an automotive sales organisation (key success elements for a sales organisation), and an e-mobility transformation blueprint (key success elements of a successful journey). The first element is discussed in these research notes, while the second part will be addressed in a later paper.
The specific objective of these research notes is to show that the addition of automotive sales strategies and business models enhances generic OD models by adding customer-centricity and industry specifics, thus providing a more comprehensive OD model.

3. RESEARCH DESIGN

3.1 MODEL CONSTRUCTION

In order to build a new model, a systematic dissection and reconstruction of existing OD and OT (organisational transformation) models (Rintamaki et al., 2006; Miles, Huberman & Saldaña, 2014) was performed. The focus here will be on the OD models.
A number of OD models were identified:

- digital readiness indices to reflect contemporary knowledge
- organisational design models and principles
- customer-centric design models (OD models with an explicit and particular focus on customer centricity)
- automotive sales strategy models (to provide industry specific knowledge)

Altogether, 20 OD models, consisting of 421 single elements, were deconstructed, and their elements were grouped together based on their logical fit following an abductive approach (Rintamaki et al., 2006; Miles, Huberman & Saldaña, 2014). This process required many iterations to identify the top level (domains), the second level (building blocks) and the last level (activity groups). The result is an OD readiness model encompassing key elements from all sources and consisting of 6 domains, 12 building blocks (shown below) and 29 activity groups. Each activity block consists of a set of key success elements and the complete model may be used as a checklist in order to evaluate the e-mobility readiness of an automotive organisation.

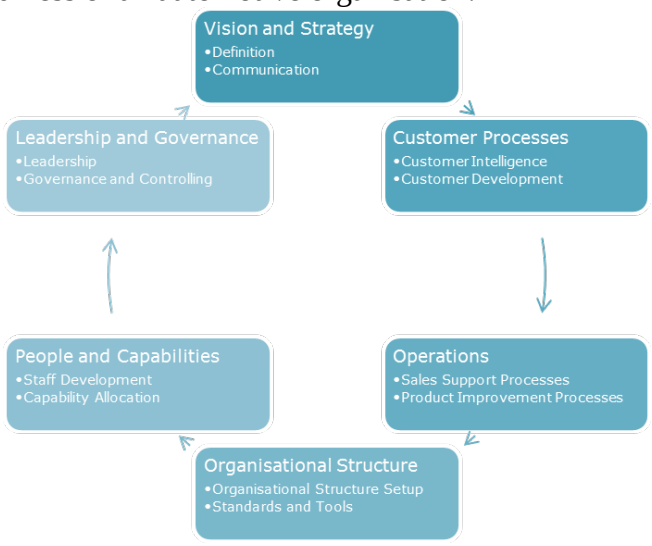

Figure 1. Result of the construction of the model (domains and building blocks)

3.2 MODEL LIST

The following sources were used to construct the model[1]:

Digital readiness models	Accenture digital readiness (accenture, 2016)
	Forrester digital readiness (Gill & VanBoskirk, 2016)
	Kienbaum industry 4.0 readiness (Jochmann, 2016a)
	Kienbaum digital readiness (Jochmann, 2016b)
	Ernst and Young digital maturity (Ernst and Young, 2016)
	Deloitte Digital readiness check (Deloitte Digital Europe, 2015)
	Deloitte Digital maturity model (Deloitte Consulting GmbH, 2015)
Customer centric design models	Galbraith's star model (Galbraith, 2005)
	Doug Leather's blueprint (Leather, 2013)
Organisational design models	Porras and Silvers's components (Porras & Silvers, 1991)
	Nadler and Tushman's orga design (Nadler & Tushman, 1997)
	Weisbord's six boxes (Weisbord, 1976)
	Burke and Litwin's causal change model (Burke & Litwin, 1992)
	McKinsey's 7 S (McKinsey, 2008)
Organisational design principles	Taylor's 4 scientific principles (Taylor, 1911)
	Fayol's 14 principles (Fayol, 1916)
	Deming's 14 points (Deming, 2000)
Automotive fleet and mobility sales models	Super_Cars_2011 fleet sales implementation checklist (Super_Cars_2011, 2011)
	Super_Cars_2012 fleet and mobility strategy (Super_Cars_2012, 2012)
	Super_Cars_2014 fleet and mobility sales strategy (Super_Cars_2014, 2014)

Table 1. Overview used OD models for framework construction

3.3 MODEL VALIDATION

The model based on the literature requires testing and validation, and a case study approach has been chosen for this (Eisenhardt, 1989; Yin, 2013). Semi-structured interviews will be held with car manufacturers in order to obtain their opinions on all 12 of the building blocks for e-mobility readiness and the importance of each building block, and to obtain reasons and suggestions from them. Furthermore, there will be interviews with the manufacturers' customers in order to integrate their points of view, as part of the customer-centric approach. In order to include a reasonable population (Baker & Edwards, 2012; Yin, 2013), interviews with three different manufacturers and their customers will be held at headquarters level and also in different national sales organisations.[2]

Semi-structured face-to-face interviews have been selected for several reasons. The results will be mainly qualitative, despite the questions about ranking of e-mobility readiness and the importance of the building blocks. The context is complex, so the meaning of each building block can be specified in more detail during the discussion. The interview guidelines for the manufacturers have been piloted in two countries and two languages, in order to fine tune the wording and the results. Feedback from the participants confirms that the selected method and the selected structure of domains and building blocks are appropriate. The interview guidelines for customers are currently being validated.

[1] Car manufacturers' names have been changed for confidentiality reasons and the three companies have been renamed into Super_Cars_####

[2] The three manufacturers to be interviewed are different from the three who provided the sales strategy models.

4. CONTRIBUTION

The contribution to practice is a tool (the e-mobility organisational readiness model) that allows any car manufacturer to perform an e-mobility organisational readiness check for its sales organisations in any country. A further contribution to practice is another tool (the e-mobility transformation blueprint), allowing manufacturers to perform an e-mobility transformation readiness check to evaluate where they are in their transformational journey.

The contribution to theory in terms of methodology is the approach of systematically mapping different organisational models from different sources. Mappings have been done in the past for organisational transformation models (Kritsonis, 2005; Hernaus, 2008; Mitchell, 2013; Otsupius & Otsu, 2015; Cummings, Bridgman & Brown, 2016), but this has not been performed in a rigorous manner and has not been completed for organisational design models. A further contribution to theory and practice is the integration of different models from different worlds: thus, providing a more comprehensive and complete approach.

The contribution to theory in terms of content is the finding that traditional OD models and also "modern" digital readiness models lack customer centricity to a certain extent, either completely or partially.

5. FINDINGS

The findings of this research note will be limited to a short extract of the analysis for *customer processes*, which is the second domain of the e-mobility organisational readiness model. Results concerning the other five domains will be published later.

The analysis of the models led to the identification of two building blocks for customer processes – *customer intelligence and customer development*. Each building block then consists of three activity groups. Whenever a model has got a particular contribution towards an activity group, it has been marked with an "x".

						Organisational design																				
						OD readiness							CC		OD model						OD principle			Automotive		
Domain_ID	Domain_Description	Building_Block_ID	Building_Block_Description	Activity_ID	Activity_Description	Accenture	Forrester	Kienbaum industry 4.0	Kienbaum digital	EY	Deloitte Austria	Deloitte Digital	Galbraith	Leather	Porras and Silvers	N & D Design	Weisbord	Burke and Litwin	7 S	Taylor	Fayol	Deming	Super_Car_2011	Super_Car_2012	Super_Car_2014
	Vision and Strategy																									
2	Customer Proce	1	Customer Intelliger	1	Market Intelligence	x				x		x											x	x	x
				s	Customer Understanding		x					x											x		x
				3	Analytics and Knowledge Management		x	x		x	x	x		x											
			Customer Intelligence																							
		2	Customer Develop	1	Customer Acquisition					x		x		x									x	x	x
				2	Customer Retention					x	x		x	x									x	x	x
				3	Sales Channel Development	x	x					x											x	x	x
			Customer Development																							
	Customer Processes																									

Figure 2. Model mapping customer processes

A short summary of the strengths and weaknesses of the analysed models is as follows:

Digital readiness models provide some input for customer-centricity. The strength of these models lies in their data and knowledge management (Deloitte Consulting GmbH, 2015; Deloitte Digital Europe, 2015; Ernst and Young, 2016; Gill & VanBoskirk, 2016; Jochmann, 2016a). Further substantial contribution to this domain comes from

automotive mobility readiness models (Super_Cars_2011, 2011; Super_Cars_2012, 2012; Super_Cars_2014, 2014); they lack only the knowledge management part. Their particular strength lies in the thorough way in which they address the customer journey from first contact to being a customer. These aspects are only sporadically considered in the digital readiness models.
Customer-centric models (Galbraith, 2005; Leather, 2013) gave little input, despite their explicit focus. The classical OD models and principles did not provide much input for customer-centricity; their strength lies elsewhere.

6. DISCUSSION

Integrating automotive sales strategy concepts and implementation checklists have added substantially to the topic of customer-centricity, and provided specific industry context. Although not scientifically substantiated, they enhance the existing models because of their ecological validity, both in terms of customer-centricity (because they are destined for sales organisations) and in terms of industry competence (because they are very specific to the automotive industry).
This approach has helped to build a more comprehensive and complete organisational design model for sales, and the approach of combining scientific and practical sources may be of value for similar studies and research.
However, this does not mean that automotive sales organisations, in this case specifically the sales organisations the fleet and mobility strategies originated from, are automatically customer centred organisations. That just proves that corresponding thoughts have been put on paper. The challenges of automotive organisations due to their socio-technological history (Geels et al., 2012; Nieuwenhuis & Wells, 2015) in implementing a customer centred approach will be part of the overall research objective of developing an e-mobility readiness model for automotive sales organisations and therefore be available in later publications.

7. NEXT STEPS

A more thorough analysis is currently being done, but, independently of this, the next steps will be the interviews with the car manufacturers and their customers to understand what they consider gaps and the priorities. This will be the approach for the OD model and the findings and conclusions will be summarised and published at a later stage.
For the OT model, the recommendation is a longitudinal study, which will be done at a later stage as well.

REFERENCES

accenture (2016) ‘Digital Readiness Index Framework’.

Baker, S. E. & Edwards, R. (2012) ‘How many qualitative interviews is enough ?’, *National Centre for Research Methods Review Paper*, pp. 1–42. doi: 10.1177/1525822X05279903.

Bernhart, W. et al. (2015) ‘E-mobility index Q3 2015’. Roland Berger GmbH; Forschungsgesellschaft Kraftfahrwesen mbH Aachen. Available at: www.rolandberger.com.

Burke, W. W. & Litwin, G. H. (1992) ‘A causal model of organizational performance and change’, *Journal of Management*, 18, pp. 523–545. doi: 10.5539/ass.v9n9p270.

Cummings, S., Bridgman, T. & Brown, K. G. (2016) ‘Unfreezing change as three steps: Rethinking Kurt Lewin’s legacy for change management’, *Human Relations*, 69(1), pp. 33–60.

Deloitte Consulting GmbH (2015) ‘Digital Readiness Assessment’.

Deloitte Digital Europe (2015) *Digital maturity check*. Available at: http://www.deloittedigital.com/eu/digitalmaturity (Accessed: 6 January 2017).

Deming, E. W. (2000) *Out of the crisis*. MIT Press.

Eisenhardt, K. M. (1989) ‘Building theories from case study research’, *Academy of Management Review*, 14(4), pp. 532–550.

Ernst and Young (2016) ‘The digital maturity check’, pp. 1–2.

Fayol, H. (1916) ‘General and industrial management’, in *General and industrial management, trans. Constance Storrs (Original work published 1916, reprinted 1949)*. Pitman Publishing Ltd., pp. 19–42.

Galbraith, J. R. (2005) *Designing the customer-centric organization: A guide to strategy, structure, and process*. San Francisco, CA: Jossey-Bass Inc., Publishers.

Geels, F. et al. (2012) *Automobility in Transition?*, *Automobility in Transition?* New York: Routledge.

Gill, M. & VanBoskirk, S. (2016) ‘The digital maturity model 4.0’, *forrester.com*, pp. 0–17.

Hainz, C. et al. (2015) *Future of automotive retail - Shifting from transactional to customer-centric*, *Ernst & Young*.

Hattrup-Silberberg, M. (McKinsey) (2016) ‘Electric vehicle index (EVI)’. McKinsey. Available at: https://www.mckinsey.de/elektromobilitaet.

Hernaus, T. (2008) *Generic Process Transformation Model: Transition to Process-based Organization, Working paper Series: Paper No. 08-07*.

Hybridcars.com (2017) *Top 10 Plug-in Vehicle Adopting Countries of 2016*. Available at: http://www.hybridcars.com/top-10-plug-in-vehicle-adopting-countries-of-2016/ (Accessed: 8 March 2017).

IHS Markit (2016) *Automotive plug-in electric vehicle index*. Available at: https://www.ihs.com/Info/0715/automotive-vehicle-index.html (Accessed: 17 December 2016).

Irle, R., Pontes, J. & Irle, V. (2017) *The Electric Vehicle World Sales Database, EV-volumes.com*. Available at: http://www.ev-volumes.com/country/total-world-plug-in-vehicle-volumes/ (Accessed: 8 March 2017).

Jochmann, D. W. (2016a) ‘Der People-Faktor im Rahmen digitaler Transformation: Kienbaum Digital Readiness Check’. Available at: www.kienbaum.de.

Jochmann, D. W. (2016b) ‘Kienbaum digital readiness check’. Available at: www.kienbaum.de.

Kritsonis, A. (2005) *Comparison of Change Theories*, *International Journal of Scholarly Academic Interlectual Diversity*.

Latendorf, A. G., Kohl, O. D. & Minarski, A. (2017) *E-mobility is starting so slowly*, *sentimentlab.com*. Available at: http://sentimentlab.com/news/e-mobility-is-starting-so-slowly/?lang=en (Accessed: 11 May 2017).

Leather, D. (2013) *The customer-centric blueprint: Building and leading the 21st century organisation*. South Africa: Reap Publishing.

McKinsey (2008) *Enduring ideas: the 7S Framework, McKinsey Quarterly*. Available at: http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-7-s-framework (Accessed: 6 January 2017).

McKinsey (2016) *Automotive revolution – perspective towards 2030, Stanford University, PEEC Sustainable Transportation Seminar*. doi: 10.1365/s40112-016-1117-8.

Miles, M. B., Huberman, A. M. & Saldaña, J. (2014) *Qualitative data analysis*. SAGE.

Ministry of Environment Chile & Ministry of Transport and Telecommunication Chile (2012) *Proposal e-mobility readiness plan Chile*. Available at: http://www.transport-namadatabase.org/e-mobility-readiness-plan-chile-2/.

Mitchell, G. (2013) 'Selecting the best theory to implement planned change', *Art & science*, 20(1), pp. 32–37. Available at: www.nursingmanagement.co.uk.

Nadler, D. A. & Tushman, M. L. (1997) *Competing by design: The power of organizational architecture*. New York: Oxford University Press.

Nieuwenhuis, P. & Wells, P. (2015) *The global automotive industry*. Chichester: John Wiley & Sons.

Otsupius, A. I. & Otsu, P. A.-I. (2015) 'International Journal for Research in Business , Management and Accounting TREND IN LAND USE / COVER CHANGES IN STUBBS CREEK', *International Journal For Research In Business, Management And Accounting*, 1(1), pp. 123–130.

Porras, J. I. & Silvers, R. C. (1991) 'Organization development and transformation', *Annual Review of Psychology*, (42), pp. 51–78.

Rintamaki, T. et al. (2006) 'Abductive reasoning in logistics research', *International Journal of Retail & Distribution mangement*, 34(1), pp. 6–24. doi: 10.1108/02656710210415703.

Roland Berger Strategy Consultants & IESE Business School (2013) '21st Century Car Distribution in Europe', p. 40.

Statista (2017) *Global automotive industry - statistics & facts*. Available at: https://www.statista.com/topics/1487/automotive-industry/ (Accessed: 5 July 2017).

Super_Cars_2011 (2011) *Mobility implementation checklist*.

Super_Cars_2012 (2012) *Mobility implementation checklist*.

Super_Cars_2014 (2014) *Fleet readiness checklist*.

Taylor, F. W. (1911) *The principles of scientific management*. New York and London: Harper & Brothers.

Weisbord, M. R. (1976) 'Organizational diagnosis: six places to look for trouble with or without a theory', *Encyclopedia of applied psychology*, 1(December), pp. 430–447. doi: 10.1016/B0-12-657410-3/00589-4.

Yin, R. K. (2013) *Case study research: Design and methods (applied social research methods)*. 4th edn. Thousand Oaks, CA: Sage Publications.