Driving organisational change in SMEs using service design

Abstract

Purpose: To present a service design-based methodology developed to help small and medium enterprises (SMEs) undertake organisational change.

Methodology: This research used the design science research methodology, which enabled the creation of the *Service Design for Organisational Change (SD4OCh*) methodology. A real case study of a small service company specialised in neuropsychological disorders was used for the definition and validation of SD4OCh.

Findings: The main outcome of this study is the SD4OCh methodology, which is based on three key stages: diagnosis (knowing where to begin by detecting the organisation's strengths and weaknesses), innovation (improving the structure/processes and designing/redesigning services by employing a customer-centric approach), and implementation (enabling the definition of the route towards organisational change). There is also a transversal evaluation stage, which quantifies the organisational changes.

Originality: Although this is a service design-based research, the SD4OCh methodology was developed in order to enable companies to make holistic changes, namely, to innovate their services, structure, and processes, thus supporting and guiding organisational change.

Research limitations/implications: This study adds valuable knowledge to the service science research field and contributes to the awareness of the usefulness of service design theory within companies, especially those which are small and medium-sized, since they lack the tools and methods required to tackle organisational change, signifying that the challenges they confront are different to those of larger companies.

Keywords: Service Design, Methodology, Organisational Change, Innovation, SMEs.

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Table I presents an example of the metric used for each attribute.

Tabla I Indirect metric that quantifies the attribute 1.1.1.2.2. Signaling Availability

Attribute:	1.1.1.2.2 Signaling Availability	
Name:	Degree of Signaling Availability (DSA)	
Objetive:	Quantify the number of designated rooms with respect to the total number of rooms present in the building.	
Author: Salgado_Papa		**Versión:** 1.0
Calculation method:		
	Name: DSA Determination	**Specification:** Apply related function
Function:		
	Name: DSA function	**Specification:** DSA= #SR/TSE
Numerical scale:		
	Rendering: Continuous	**Scale:** Absolute
	Value kind: Real	**Unit:** Percentage
Related Metrics:		
	Number of Signalized Rooms (#SR)	Total Number of Existing Rooms (TNE)

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Table II presents the questionnaire used in the interview, their metrics, initial values, final values and the impact caused by applying the SD4OCh methodology.

Tabla II. Questionnaire and interview metric

Dimensions	Sub-Dimensions		Questions		Metrics	Initial Evaluation	Final Evaluation	Impact
Tangible	***Facilities***	*Cleaning*	1	What periodicity the facilities are cleaned?	Daily (100) -Every two days (75) -Weekly (50) -Fifteen (25) -Monthly (0)	100,00	100,00	0
		Signaling	2	Proportion of the number of offices or spaces signaled among the total number of offices / spaces.	Number of signaled rooms / Number of rooms	0,00	0,00	0
		Storage	3	Does it have a suitable place to storing exercise materials?	Yes (100) - Yes, but not enough (50) - No (0)	0,00	0,00	0
			4	Does it have a suitable place to keep patient records?	Yes (100) - Yes, but not enough (50) - No (0)	0,00	0,00	0
			5	Does it have a suitable place to store administrative stuff?	Yes (100) - Yes, but not enough (50) - No (0)	0,00	0,00	0
			6	Does it have a suitable place to store cleaning stuff	Yes (100) - Yes, but not enough (50) - No (0)	100,00	100,00	0
		Restroom	7	Restroom type offered in the facilities.	No restroom(0) - Only one bathroom without adaptation (20) - Only one adapted restroom (40) - Two restroom (ladies / men) without adaptation (60) - Two restroom (ladies / men) with adaptation (80) - Three restroom (Ladies / Gentlemen / Disabled) (100)	20,00	20,00	0
		Office	8	Does it have lunchroom?	Yes (100) - No (0)	100,00	100,00	0
		Lobby	9	Does it have comfortable furniture?	Yes (100) - No (0)	100,00	100,00	0
			10	Does it have any stuff to pass the time?	Yes (100) -No (0) -Regular (50)	0,00	0,00	0
		Reception	11	Does it have reception?	Yes, in a dedicated space (100) - Yes, in shared space (50) - No (0)	50,00	50,00	0
			12	Is it near the entrance?	Yes (100) - No (0)	0,00	0,00	0
			13	Is it adequate?	Yes (100) -Medium (50) -No (0)	0,00	0,00	0
		Workroom	14	Does it have enough offices?	Yes (100) -Medium (50) -No (0)	0,00	0,00	0
			15	Does it is the right size?	Yes (100) -Medium (50) -No (0)	0,00	0,00	0
			16	Does it have the necessary equipment?	Yes (100) -Medium (50) -No (0)	0,00	0,00	0
	Equipment			For each person working in the company who use office equipment				
			17	Is there enough equipment to carry out your activity?	First, we obtain the sufficiency value (equipment per person) and then, we calculate the sufficiency per equipment (sum of equipment by type / number of people). The final value averages all the sufficiency per equipment, at last it is multiplied by: (ALWAYS * 5 + SOMETIMES * 1 + Never * 0) / 50	73,00	100,00	27,00
			18	Is each equipment suitable for the task you are doing?	Yes (100) - No (0)	68,00	100,00	32,00

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Dimensions	Sub-Dimensions			Questions	Metrics	Initial Evaluation	Final Evaluation	Impact
				For each person working in the company who use other than office equipment				
			19	Is there enough equipment to carry out your activity?	First, we obtain the sufficiency value (equipment per person) and then, we calculate the sufficiency per equipment (sum of equipment by type / number of people). The final value averages all the sufficiency per equipment, at last it is multiplied by: (ALWAYS * 5 + SOMETIMES * 1 + Never * 0) / 50	83,50	100,00	16,50
			20	Is each equipment suitable for the task you are doing?	Yes (100) - No (0)	82,00	100,00	18,00
	Staff		21	Does the staff wear corporate uniforms?	Number of people who wear a uniform / Number of people employed in the office	0,00	80,00	80,00
			22	Does the staff have identification card with their name?	Number of people with identification card/ number of people employed in the office	0,00	100,00	100,00
			23	Is the working section identified according to uniforms?	Yes (100) - Some sections (50) - No (0)	0,00	50,00	50,00
	Corporate identity		24	Does the organisation have a corporate manual?	Yes (100) - No (0)	0,00	100,00	100,00
			25	Does the organisation have a corporate logo?	Yes (100) - No (0)	100,00	100,00	0,00
			26	Are the reports printed on corporate letterhead?	Yes (100) - No (0)	6,60	91,89	85,30
			27	Are emails sent with logo, address, telephone numbers, hours?	Yes (100) - No (0)	45,00	93,00	48,00
			28	There are business cards?	No one has a card (0) - Somebody have a card (50) - Everybody has a card (100)	0,00	100,00	100,00
			29	Does it have a sign outside?	Yes (100) - No (0)	0,00	100,00	100,00
			30	Does it have web presence? (Institutional website - social networks - blogs)	To add: Webpage (if there is any 40, if is updated 40, if is aesthetic 5 and if follows the corporate entity 15). Social Networks (if has from 1 to n, updated = 100, not updated = we subtract 100 / n for each not updated network). Blog (if there is any and updated = 80, if outdated = 20 and if there isn't = 0	0,00	50,00	50,00
Reliability	***Business process***		31	Does it have the service protocol?	Yes, formal and documented (100) -Yes, documented (66) -Yes, undocumented (33) -No (0)	33,00	100,00	67,00
			32	Is the service protocol followed?	Always (100) - Sometimes (50) – Never or no protocol (0)	50,00	100,00	50,00
			33	Does it have a procedures manual?	Yes, formal and documented (100) -Yes, documented (66) -Yes, undocumented (33) -No (0)	0,00	100,00	100,00
			34	Does each activity have a person in charge?	Number of people in charge / total activities	0,00	100,00	100,00
	Organisation chart		36	Does it have roles and their associated functions defined?	Yes (100) -No (0) -Sometimes (50)	50,00	100,00	50,00
			37	Are defined roles fulfilled?	sum of each role covered by at least one person / number of roles.	0,00	100,00	100,00
	Internal Control		38	Does it have a data verification process?	Yes (100) - No (0)	0,00	100,00	100,00
			39	Does it have tasks performed control?	Yes, by pairs and superiors (100) - Yes, by pairs (50) - Yes, by superior (50) - No (0)	0,00	50,00	50,00

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Dimensions	Sub-Dimensions			Questions	Metrics	Initial Evaluation	Final Evaluation	Impact
			40	Does it have to-do lists control?	Yes (100) - No (0)	0,00	100,00	100,00
	Response commitment		41	Does it indicate delivery date on reports?	Yes (100) -Approximately (50) -No (0)	50,00	100,00	50,00
			42	Are the reporting deadlines met?	Always (100) -Sometimes (50) - Never (0).	50,00	100,00	50,00
Response capacity	***Response time***		43	Is the information send in a timely manner?	Always (100) -Sometimes (50) - Never (0).	0,00	50,00	50,00
			44	How long on average does it take to resolve an email inquiry?	Half a day (100) - One day (50) - More than one day (0)	0,00	50,00	50,00
			45	How long on average does it take between the first contact of the client and the sending of the form to be completed?	1 week (100) -2 weeks (75) -3 weeks (50) - 4 weeks (25) - + four weeks (0)	66,00	66,00	0,00
			46	How long on average does it take between receiving the client's response until the first interview?	1 week (100) -2 weeks (75) -3 weeks (50) - 4 weeks (25) - + four weeks (0)	66,00	66,00	0,00
			47	How long on average does it take between the first interview and the delivery of the report?	1 week (100) -2 weeks (75) -3 weeks (50) - 4 weeks (25) - + four weeks (0)	66,00	66,00	0,00
			48	Is a report elaboration status done?	Yes (100) - No (0)	0,00	50,00	50,00
			49	Are there available appointments to patients follow up every three months?	Yes, within the first week (100) - Yes within the second week (66) - Yes within the third week (33) - + four weeks (0)	25,00	75,00	50,00
			50	How many weeks later are cancelled appointments rescheduled?	Within the first week (100) - within the second week (66) - within the third week (33) - + four weeks (0)	0,00	75,00	75,00
Empathy			51	When dealing with patients or tutors, are they called by their name?	Yes (100) - Sometimes (50)-No (0)	100,00	100,00	0,00
			52	Is personalized correspondence sent for patient's birthday, treatment ending, or New Year?	Yes (100) - Sometimes (50)-No (0)	0,00	0,66	0,66
			53	Are reminders made prior to appointments?	Yes (100) - Sometimes (50)-No (0)	0,00	100,00	100,00
			54	Are cancelled appointments due to internal contingencies notified?	Yes (100) - Sometimes (50)-No (0)	50,00	100,00	50,00
			55	Are appointments tailored to client / patient circumstances?	Yes (100) - Sometimes (50)-No (0)	50,00	50,00	0,00
			56	Is the patient seen if he is late?	Yes (100) - Sometimes (50)-No (0)	100,00	100,00	0,00
			57	Are employees willing to resolve customer?	Yes (100) - Sometimes (50)-No (0)	100,00	100,00	0,00
			58	Are there procedures to help the client fill out the requested questionnaire?	Yes (100) - Sometimes (50)-No (0)	0,00	50,00	50,00
			59	Do patients or clients have easy access to managers (CEOs)?	Yes (100) - Sometimes (50)-No (0)	100,00	100,00	0,00
Assurance	***Customer Support***			*For each person who works in the organisation:*				
			60	Do you know your role?	Yes, completely (100) -Yes, partially (50) - No (0)	55,00	100,00	45,00

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Dimensions	Sub-Dimensions		Questions		Metrics	Initial Evaluation	Final Evaluation	Impact
			61	Do you know your role functions?	Yes, completely (100) - Yes, partially (50) - No (0)	55,00	100,00	45,00
			62	Do you know the activities involved in your duties?	Yes, completely (100) -Yes, partially (50) -No (0)	55,00	100,00	45,00
			63	Do the activities you usually carry out coincide with those of your role?	Yes, completely (100) -Yes, partially (50) -No (0)	45,00	100,00	55,00
			64	Do you ask your superiors to answer customer questions?	Yes (100) -Sometimes (50) -No (0)	75,00	75,00	0,00
			65	Do you think you have enough time to serve customers?	Yes (100) - Sometimes (50) -No (0)	50,00	50,00	0,00
			66	Does the company have an incentive policy to encourage proper customer service by its employees?	Yes (100) - No (0)	0,00	0,00	0,00

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Table III presents the questionnaire and metrics used in the survey to know the opinion of the clients.

Tabla III. Questionnaire and survey metric

Customer satisfaction	***Metric***
Relationship between patient and person responsible for it before the organisation	[Mother] [Father] [Tutor] [I am the patient]
Please indicate your age range	[<20] [Between 20-29] [Between 30-39] [Between 40-49] [Between 50-59] [Between 60-69] [Between 70-79]]
Gender	[Female] [Male] [Others]
What is the patiente's responsible person employment status?	[Employed by someone else] [Self Employed] [Unemployed] [Retired] [At home]
Age of the patient	[<1], [1], [2], [3], [4], [5], [6], [7], [8], [9], [10], [11], [12], [13], [14], [15], [16], [17], [18], [>18]
Patient gender	[Feminine] [Male] [Others]
Patient nationality	
Patient residence country	
Location	
Does the patient have any diagnosed pathology?	[0] No, [100] Yes
What pathology have he been diagnosed with?	
What type of specialist did diagnose it?	[Pediatrician] [Neurologist] [Psychologist] [Psychiatrist] [Other]
Does he followed any type of therapy for this pathology? Which one?	
How long have you been with us?	[<1 month], [1 month], [2 months], [3 months], [4 months], [5 months], [6 months], [8 months], [9 months], [10 months], [11 months], [12 months], [1 year], [2 years], [3 years], [4 years], [5 years]
What is the reason why you have come to our consultation?	
What results do you hope the patient will get from the therapy?	
How did you know about the organisation?	[Family member or friend] [Web page] [Blog] [Congress] [Another professional]]
Rate our facilities	((0) Not at all Satisfied (5) Very satisfied
Value your experience in the first contact with us (information call)	(0) Not at all Satisfied (5) Very satisfied
Rate your satisfaction with the attention of our administrative staff.	(0) Not at all Satisfied (5) Very satisfied
Rate your satisfaction with the attention of our clinical staff.	(0) Not at all Satisfied (5) Very satisfied
Rate your first interview with clinical staff	(0) Not at all Satisfied (5) Very satisfied
Value the Patient Assessment Session	(0) Not at all Satisfied (5) Very satisfied
Rate the exercise program explaining session	(0) Not at all Satisfied (5) Very satisfied
Value the information received about the treatment, its evolution and the effects that may cause	(0) Not at all Satisfied (5) Very satisfied
Value how we have resolved your doubts and concerns regarding the performance of the treatment	(0) Not at all Satisfied (5) Very satisfied
Classify each of the following difficulties in performing the treatment [Patient's resistance to performing exercises.] [Lack of time and / or patience by person responsible for the patient.] [Lack of time and / or patience by the patient.] [Lack of confidence in treatment.] [Difficulty obtaining or purchasing the material.] [Difficulty having the material at home.]	((0) Not at all Satisfied (5) Very satisfied

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Customer satisfaction	***Metric***
[Exercises too complicated]	
Value how the organisation has helped you to continue with treatment	(0) Not at all Satisfied (5) Very satisfied
What manner do you think we could support your family with the treatment?	[With sessions at the clinic] [Sending qualified personnel to your home] [At home with some support sessions in the organisation] [Providing enough material] [Providing exercise explanation videos] [Others]
Will you continue the treatment with us?	(0) Not at all agree (5) Strongly agree
Would you recommend us?	(0) Not at all agree (5) Strongly agree
If you have any comments that we did not address during the interview, we would appreciate if you let us to know.	

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