Identifying and prioritizing coworking member needs

N.B. When citing this work, cite the original published paper.

(article starts on next page)

Identifying and prioritizing coworking member needs

Erik Johansson, Erik Rådman, Hendry Raharjo and
Petra Bosch-Sijtsema
*Division of Innovation and R&D Management, Department of Technology
Management and Economics, Chalmers University of Technology,
Gothenburg, Sweden*

Abstract

Purpose – This paper aims to identify and prioritize the needs of coworking members. The authors focus on maintaining the existing members rather than attracting new ones.

Design/methodology/approach – The authors use two phases and multiple methods. The first phase focuses on a qualitative approach using observations and interviews to uncover and formulate the members' needs. The second phase focuses on prioritizing the needs using a quantitative approach.

Findings – The authors discovered 19 member needs from the coworking spaces. Based on an online survey, the authors classified those needs into three main Kano model's categories.

Originality/value – The resulting member needs and their strategic priorities provide a useful basis for coworking providers to direct their improvement efforts towards achieving greater member satisfaction.

Keywords Kano model, Coworking space, Coworking needs identification,
Coworking needs prioritization, Member needs, Strategic priority

Paper type Research paper

Introduction

Coworking spaces (Howell, 2022a; Bouncken *et al.*, 2023) may have changed the way people work. They provide flexibility to work from anywhere, anytime, with the possibilities of networking and collaborating with others. It also enables real estate owners to use their spaces and facilities to the fullest capacity. For knowledge workers using coworking spaces, this creates not only a cost-efficient workplace that does not require ownership or maintenance but also the ability to work closer to home in an inspiring, creative and productive environment. It eliminates the need to traverse the urban environment, especially for those who live far from their offices (Lejoux *et al.*, 2019; Ohnmacht *et al.*, 2020).

As coworking has become increasingly popular, it is expected that the number of coworking spaces in the world will continue to grow (see Kraus *et al.*, 2022). There are different definitions of coworking, and there seems to be some ambiguity on what it entails (Spinuzzi, 2012). A common denominator is the focus on the shared physical space

(Bilandzic and Foth, 2013; Parrino, 2015; Gauger *et al.*, 2021; Kraus *et al.*, 2022). The spaces are characterized as flexible, open-plan office environments (Spinuzzi, 2012), and its users are described as unaffiliated (Spinuzzi, 2012), location independent (Bueno *et al.*, 2018), knowledge professionals and entrepreneurs (Kraus *et al.*, 2022). In later work, next to the physical shared space, social connectivity also becomes relevant (Orel and Bennis, 2021; Kraus *et al.*, 2022). In research, coworking is viewed as a new form of work redefining traditional physical, temporal and spatial boundaries (cf. Yacoub and Haefliger, 2022).

As more and more companies are becoming interested in hosting coworking spaces, it is important to understand what makes one choose one coworking space over another. We argue that the coworking space that can cater better to their member needs will be chosen. In general, the success of creating customer satisfaction lies in how well the provider can understand and manage their customer needs. Without a proper understanding of customer needs, any efforts to improve or enhance any product or service will not be effective. In other words, one should not make a flawless product or service that the customer does not need.

From earlier studies, we know that coworking users and their needs are heterogeneous (Lashani and Zacher, 2021) and that understanding their preferences and motivations is important for coworking space owners and operators (Weijs-Perrée *et al.*, 2019; Appel-Meulenbroek *et al.*, 2020; Ayodele *et al.*, 2021). It seems that the terms "motivation", "preference" and "need" are used interchangeably but are not clearly defined or discussed. We argue that although they have some overlap, they are distinct from one another. An example of user preference can be "strategic location", whereas motivation can be "to work in a neat or creative environment". Both are important in attracting new members. However, for maintaining and retaining the existing members, an understanding of their underlying needs is necessary. Note that we henceforth refer to users or customers as members. Examples of member needs include "to belong to a community" and "to learn new things from peers and events". A member's need relates to the benefit or job, which addresses basic human needs, to be fulfilled by the product or service.

The aim of this paper is to identify and prioritize coworking member needs. It answers the following questions: "what are the member needs?" and "which need deserves more attention?". We focus on maintaining the existing members rather than attracting new ones. The prioritization of member needs is performed using the Kano theory (Kano *et al.*, 1984; Witell *et al.*, 2013), which has been shown to contribute to understanding different types of needs in the quality management field (Luor *et al.*, 2015; Materla *et al.*, 2019; Pandey *et al.*, 2020). Knowing the members' basic needs and how to strategically prioritize them would help coworking providers effectively direct their improvement efforts to achieve greater member satisfaction. This research, among the few, contributes to the understanding and management of member needs in the existing coworking literature.

Theoretical background
Coworking and coworkers
The coworking movement was started in San Francisco in 2005 by Brad Neuberg, who wanted to create a place for working together and sharing resources (Spinuzzi, 2012). Since then, it has become increasingly popular all over the world, in industries as well as in academia; see Kraus *et al.* (2022) or Howell (2022a) for more recent reviews. According to Deskmag (2019a), the number of coworking spaces has increased from 8,900 in 2015 to 18,700 in 2018. By the end of 2024, this number is projected to reach around 41,975 worldwide (Statista, 2020). Since the Covid 19 pandemic, many workers have tried to find a new, more flexible work solution, and a large portion has settled for a coworking space (Howell, 2022b).

One reason for the popularity of coworking spaces is that they align well with the concept of sharing economy. The sharing economy allows coworking members to share facilities such as WiFi routers (Spinuzzi, 2012; Bilandzic and Foth, 2013), printing services (de Peuter *et al.*, 2017; Ivaldi and Scaratti, 2019), coffee machines, receptions and the physical space itself, rendering it a cheaper solution compared to other alternatives (Bouncken *et al.*, 2018). Tremblay and Scaillerez (2020) also mentioned that some people join a coworking space only to seek a professional address or a room for business meetings to appear more professional in front of their clients.

Coworking was early described as an antidote to home-based work (Ross and Ressia, 2015) and is often connected to freelancers, knowledge workers, entrepreneurs, digital nomads and self-employed individuals (Waters-Lynch and Potts, 2017; Vidaillet and Bousalham, 2018; Merkel, 2019a; van Dijk, 2019; Gauger *et al.*, 2021). While freelancers, entrepreneurs and start-ups initially used coworking spaces, larger and established firms have also started to use coworking spaces (Kraus *et al.*, 2022; Orel and Bennis, 2021). The mixture of member diverse backgrounds may pose a challenge for value creation since some members may follow social logics and some other business logics (Bouncken and Tiberius, 2023).

In coworking literature, different types of typologies have been developed over time. Spinuzzi (2012) developed two configurations of coworking spaces: the good-neighbours configuration, comprising actors working in parallel with a collaborative focus but supporting every member's individual work, and the good-partners configuration, which focuses on the habitat of actors cooperating as partners. Kojo and Nenonen (2016) used business models and different levels of user access to identify six coworking space typologies in Finland. Bouncken *et al.* (2018) classified coworking spaces into four types and found among them tensions regarding value creation and value appropriation relating to coopetition. Ivaldi and Scaratti (2019) discussed four types of coworking related to the concept of sharing: infrastructure coworking, relational coworking, network coworking and welfare coworking. A recent study by Orel and Bennis (2021) developed a taxonomy of coworking spaces with four different models:

(1) the individual-purposed space in which freelancers and location-independent professionals work alongside each other;

(2) a creation-purposed space focusing on creating things together (i.e. a makerspace);

(3) a group-purposed space focusing on teams rather than individuals; and

(4) a startup-purposed coworking space emphasizing startup communities, mentorship and social connections.

Motivations and drivers for coworking
Coworking research has discussed benefits of coworking as well as motivations and drivers for coworking. Community is often mentioned as an important benefit in coworking spaces (Garrett *et al.*, 2017; Butcher, 2018; Blagoev *et al.*, 2019; Spinuzzi *et al.*, 2019), among other benefits such as collaboration (Castilho and Quandt, 2017), knowledge sharing (Parrino, 2015; Bouncken and Aslam, 2019), innovation (Cabral and Winden, 2016; Cheah and Ho, 2019) and support in social aspects as well as increasing performance (Gerdenitsch *et al.*, 2016).

Many scholars have found various motivations for professionals to engage in and be a part of coworking. Among these are interaction and social support (e.g. Spinuzzi, 2012; Merkel, 2019a; Ross and Ressia, 2015; Clifton *et al.*, 2019), avoiding isolation (e.g. Gandini, 2015; Brown, 2017), productive work environment (e.g. Spinuzzi, 2012; Bueno *et al.*, 2018; Robelski *et al.*, 2019; Grazian, 2020; Bouncken *et al.*, 2021), access to network (e.g. van Dijk, 2019), professional

work environment (e.g. Spinuzzi, 2012; Brown, 2017), being able to separate home from work (e.g. Ross and Ressia, 2015; Clifton *et al.*, 2019) and collaboration (e.g. Weijs-Perrée *et al.*, 2019). Weijs-Perrée *et al.* (2019) have quantitatively measured some of the mentioned aspects in a survey, where the four most reported motivations in ascending order are looking for a workplace outside one's home, a vibrant and creative atmosphere, affordable accommodation and social interaction with co-workers. Lashani and Zacher (2021) studied motivation and needs quantitatively from a person-environment fit framework.

While the literature ascribes many positive aspects to coworking, some tensions are mentioned as well (Jakonen *et al.*, 2017; Bouncken and Reuschl, 2018; Bouncken and Aslam, 2019; Ayodele *et al.*, 2021; Ivaldi *et al.*, 2021). Bouncken and Aslam (2019) mentioned the tactics relating to ideas and knowledge, while unintended leakage of the same attributes might inhibit both learning and entrepreneurial performance, ultimately impairing trust and community (Bouncken and Reuschl, 2018). Some co-workers also struggle with distraction from their work due to time spent on networking (Bouncken and Reuschl, 2018), while some users avoid social encounters to focus on their own work (Jakonen *et al.*, 2017).

Motivations, needs and preferences
In the coworking literature, the terms "preferences", "motivations" and "needs" seem to be used interchangeably. They may overlap, but they are not indistinguishable. Let us first define what we mean by each term. Inspired by the self-determination theory (Deci and Ryan, 2014) and the job-to-be-done approach for understanding customer needs (Ulwick and Bettencourt, 2008), we define a member need as "a description of a job, which addresses innate psychological nutriments that are essential for ongoing psychological growth, integrity, and well-being, to be fulfilled by the product or service". An example of a member's basic need is "to belong to a community" (Spinuzzi, 2012; Garrett *et al.*, 2017; Jakonen *et al.*, 2017; Weijs-Perrée *et al.*, 2019).

As for motivation, we follow Weinstein and Ryan (2010)'s definition, which is "the quality of experience that energizes behavior" (p. 223). An example of a motivation, but not a need, would be "to separate home from work" (Ross and Ressia, 2015; Clifton *et al.*, 2019). In this case, the basic need could be "to be able to work smoothly without disruptions". For preference, we follow a relatively latter definition in the economics field as "whatever goes into comparative judgements and evaluations but leave out those motivational factors that influence choice more directly and not via some comparative evaluation" (Engelen, 2017). An example of this in the coworking context can be "strategic location" (Weijs-Perrée *et al.*, 2019), which can have a higher overall preference ranking compared to other aspects such as "flexible contract" or "interior aesthetics". Note that such preference is not necessarily the sole contributor to one's choice of coworking space. Furthermore, using Ulwick and Bettencourt (2008)'s job-to-be-done perspective, preferences are often more solution-focused than need-focused. The member need in this case would be "to be able to save time for work". The solutions could be, among others, to find a strategically located workplace in the city, to work somewhere nearer to home or simply to work from home. From the coworking providers' perspective, not much can be done to improve one's location, at least in a cost-effective way. Moreover, a strategic location is relatively more important for attracting new members than for maintaining the existing ones.

To maintain the existing members, it is important to first understand their basic needs and thus devise improvement efforts, services and solutions to meet those needs accordingly. Let us take another example of a member need: "to have a workplace that gives you energy". The solutions could be the design of the space, the use of various scents to stimulate certain behaviours or feelings, dynamic lighting, living plant walls, nature sounds

and many others. What is important here is not to start with improving the solutions but
rather improving the understanding of the members' needs.

The Kano model
In the field of quality management, the Kano model (Kano *et al.*, 1984), also known as the
theory of attractive quality (Witell *et al.*, 2013), has been shown to contribute to
understanding customer needs and prioritizing them (Luor *et al.*, 2015; Materla *et al.*, 2019;
Pandey *et al.*, 2020). The model classifies various needs into different categories or attributes
based on their fulfilment levels and impact on satisfaction. There are three major needs,
namely, must-be (M), one-dimensional (O) and attractive (A); see Figure 1.

A must-be (M) need is associated with those needs that are not mentioned explicitly or are
taken for granted by the member. The non-fulfillment will cause a great deal of dissatisfaction,
while the fulfillment does not bring significant satisfaction. A one-dimensional (O) need reflects
the spoken needs of the member. The more it is fulfilled, the more the member becomes satisfied,
in proportion to the degree of fulfillment. An attractive need (A) is known as delighters, which
means a little improvement on the fulfillment level will cause a significant increase in the level of
member satisfaction. However, its non-fulfillment will not cause dissatisfaction, and these needs
are not explicitly mentioned by the members either. Some other needs are indifferent (I), reverse
(R) and questionable (Q) (see CQM, 1993). In general, the must-be (M) needs should be prioritized
first, followed by the one-dimensional (O) and attractive (A) ones. There is no precise amount in
how much the difference is between different categories (Dace *et al.*, 2020).

Compared to Herzberg's two-factor theory (Herzberg *et al.*, 1959), the Kano model does
not require one to classify the item of interest (e.g. a member need) a priori. Instead, it takes
individual and situational differences into account (Matzler *et al.*, 2004). Kano believes that
the member needs, both spoken and unspoken, can be classified through a questionnaire
(CQM, 1993; Kano *et al.*, 1984; Matzler and Hinterhuber, 1998). Note that with the passage of
time, what delighted the member (A) yesterday is asked today (O) and will be expected
tomorrow (M) (Löfgren and Witell, 2008). In addition, it is worth noting that attractive need
(A) is often preceded by an indifferent one (I) (Witell and Fundin, 2005).

Research approach and context
The research comprises two phases and multiple methods. The first phase (Phase I) focuses on
an inductive approach with observations and interviews to gain insights into the coworking
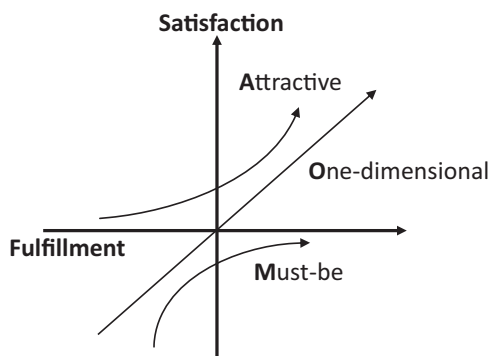
Source: Adapted from CQM (1993)

spaces and their members' needs. The second phase (Phase 2) focuses on prioritizing the uncovered needs from Phase 1 using the Kano-based questionnaire (CQM, 1993). We will first describe the qualitative study of Phase 1 and, thereafter, the quantitative study of Phase 2.

The research design was a case study design, and the case was three coworking spaces located in Gothenburg, Sweden. The first coworking space opened in 2017 and had roughly 300 members at the time of the study. There are three main membership types available:

(1) a lounge membership granting access to the main area, which is like a hotel lobby;

(2) a flex membership, which adds access to certain areas with ergonomic chairs and desks, and finally; and

(3) private offices that are customizable based on members' needs. In all three memberships, amenities and service functions are included, and the space is in the city centre.

The second space is located in a science hub outside the city centre but near a technical university and had about 15 members at the time of the study. It opened in 2019 and serves as a meeting place between industries, academia and communities. This coworking space has two membership types:

(1) flex membership with access to the main area, consisting of different types of workplaces designed to suit various needs; and

(2) private offices.

The third space opened in early 2020 and is located in the city centre. It serves as a pilot test for coworking for a big property owner. It has the same membership types as the second space, and the number of members varied from almost none to roughly 10 during the time of the study.

Phase 1: Identifying member needs

Qualitative data collection. Data were collected qualitatively with observations and interviews. For the observations, two researchers spent approximately 850 h in the coworking spaces as members with lounge memberships over the course of six months, taking field notes. Next to participant observations, observations of several events were also performed, i.e. seminars, breakfasts, after-work gatherings, workouts, etc. The observations focused primarily on how members behaved in the space, how they interacted with other members and how they performed their work in the space. The observations gave rich insights into the coworking space and its members and, as a method, can support the trustworthiness of the data collection. Data were collected in the form of notes, photographs, sketches, seating arrangements and behaviour of people, and thoughts, notes and experiences were related to the setting, date and time (Clancey, 2006).

Semi-structured interviews ranging from 30 to 60 min were held with members of the coworking space. Interviews were held with the hosts (3 interviews) as well as the members (13 interviews), and ad-hoc conversations were noted in the observations. The interviews with the hosts gave insights into the spaces and their members. A purposive sampling approach was applied to cover a diverse group of interviewees with respect to characteristics such as age, gender, occupation, tenure, employment time and the size of the employer's organization. The interviews consisted of two parts; the first part focused on the interviewee describing their work life for a particular day. The second part was a semi-structured interview based on an interview guide. Interview questions focused on topics like

challenges, relation to others, feeling of belonging, can you be yourself, when do you feel productive and motivated. All interviews were taped and transcribed by two of the authors.

Data from observations and interviews were coded with the help of affinity mapping inspired by the Kawakita-Jiro method (Scupin, 1997). Affinity mapping is a visual approach supporting the analysis of data. The affinity mapping was used for interview and observation data and started with an open coding process in which similar codes were grouped together that, in the later stage, were refined as needs were categorized into themes. Weekly meetings with the research group provided time for discussions and iterative testing of emergent themes and needs (see Table 1). The themes of Table 1 were only used for the qualitative analysis to group the different needs.

Phase 2: Prioritizing member needs
Quantitative data collection. The Kano model is used to strategically prioritize the identified member needs from Phase 1. The Kano model and analysis reveal which need deserves the most attention with respect to its impact on satisfaction, making sure that improvement efforts are effectively deployed. To prioritize the identified needs, a questionnaire was developed in accordance with the Kano model questionnaire (CQM, 1993). Specifically, the respondents were asked to answer questions based on whether or not a certain need was being fulfilled by the coworking space. The questions were, whenever possible, phrased in terms of the pairs of *can* or *cannot* as well as *able to* or *unable to*. Some examples are shown below in Table 2. The complete list of questions for all needs can be found in Table 6.

A report by Deskmag (2019b) and research by Gerdenitsch *et al.* (2016) as well as Robelski *et al.* (2019) were used as a basis for developing the demographic questions. Several strategies were also used to decrease the risk of a low response rate, such as making the survey relatively short, providing a clear rationale for participating, guaranteeing confidentiality, giving clear instructions and offering an attractive layout (Bryman and Bell,

Themes	Needs
Social needs	(n8) To belong to a community
	(n13) To have a workplace that gives you energy
	(n10) To feel welcomed at one's workplace
	(n18) To feel in control of social interactions
	(n14) To be transparent when meeting others
	(n9) To feel like a prioritized customer
Business networking	(n11) That one's workplace leaves a good impression on guests
	(n7) To be able to market one's business
	(n5) To know which other companies are members and what they do
	(n4) To cooperate/collaborate with relevant actors
	(n3) To meet people that can lead to business opportunities
Knowledge exchange	(n1) To learn new things from peers and events
	(n6) To be able to receive help or input from others
	(n19) To be able to share knowledge/competence
Productivity	(n16) To have phone calls or conversations without disturbing others
	(n12) To be able to choose a suitable work area
	(n17) To be able to manage confidential information safely
	(n15) To be able to work smoothly without technical disruptions
Physical well-being	(n2) To be healthy

Source: Authors' own work

Table 1.
Themes and needs

Label	Need	Kano question
n1	To learn new things from peers and events	How do you feel: if you are able/unable to learn new things at your coworking space (e.g. from events or other members)?
n2	To be healthy	How do you feel: if you can/cannot get help to increase or sustain a healthy lifestyle at your coworking space?
n3	To meet people that can lead to business opportunities	How do you feel: if you can/cannot get the opportunity to meet people that might lead to business opportunities at your coworking space?
n4	To cooperate/collaborate with relevant actors	How do you feel: if you are able/unable to cooperate with individuals relevant to your work or business at your coworking space?

Source: Authors' own work

Table 2.
Examples of survey questions

2011). The questionnaire was designed and pilot tested within the research team and some coworking members. The original Kano questionnaire uses two questions per need. Respondents are first asked how they would feel if a need was fulfilled by the service (functional form) and then how they would feel if that same need was not fulfilled by the service (dysfunctional form). Respondents can answer from one of five different alternative answers. Based on the combination of answers to the two questions, the need can then be classified according to the Kano evaluation table; see Table 3 (Berger *et al.*, 1993).

Therefore, if a respondent, for example, chooses the answer "It must be that way" to the functional form of the question and "I dislike it that way" to the dysfunctional form, that need would be classified as a must-be (M) for that respondent, as in Table 3. When interpreting survey results, a need receives the classification that most respondents choose. Berger *et al.* (1993) noted that if two or more needs are tied or close to a tie in classification, it could indicate the presence of different member segments.

During the pilot test of the questionnaire, there was some confusion regarding the wording of the five answers. Several different alternative answers were developed and discussed by the research team with reference to Berger *et al.* (1993). We eventually developed a final form, as shown in Table 4. Afterwards, a pilot questionnaire was sent out to some coworking members. As a result of the Covid-19 pandemic, no on-site pilot testing was done as initially planned, yet some respondents were able to provide feedback in person. The feedback was used to rephrase some unclear questions and clarify the introduction. It also gave some indication on survey completion time.

			Dysfunctional				
			1 Like	2 Must be	3 Neutral	4 Can live with	5 Dislike
Functional	1	I like it that way	Q	A	A	A	O
	2	It must be that way	R	I	I	I	M
	3	I am neutral	R	I	I	I	M
	4	I can live with it that way	R	I	I	I	M
	5	I dislike it that way	R	R	R	R	Q

Source: CQM (1993)

Table 3.
Original Kano evaluation table

Furthermore, the pilot questionnaire revealed an issue regarding the classification of answers according to the evaluation table. Specifically, one combination, that is, the option to choose "like and expect" for the functional form and "dislike but tolerate" for the dysfunctional form. This combination was often chosen in the pilot questionnaire. Considering the empirical context and data, we chose to interpret this combination of answers as a one-dimensional quality (O): respondents answer that they like and expect a certain need to be fulfilled, while they dislike but can tolerate a situation where this need is not fulfilled. This is consistent with a satisfaction proportional to the level of provision, but not as clearly as in the combination "really like" with "really dislike". The results of the pilot questionnaire for the identified needs are shown in Table 5. Note that the number next to the category is the number of times that combination is chosen.

At the time of study, two coworking spaces still had members below 20 people. Therefore, the quantitative survey was targeted at the largest coworking space. It was sent out to members at all sites in Sweden connected to the same coworking provider in the form of a Web link via email. The respondents had the option to choose whether to answer the survey in English or Swedish. The email containing the survey reached 1,287 members. After two reminders, a total of 83 persons clicked the link to the survey, and 69 persons began answering the survey. Data cleaning entailed filtering out answers with an unreasonably fast completion time (under 4 min – most of these were far from complete). Some responses were excluded since the respondent had chosen the exact same combination of functional and dysfunctional answers for all questions. After data cleaning, 58 complete responses remained. The survey responses were exported to a MS-Excel file, and a standard deviation measure was computed for the proportion of respondents that chose each category for each need.

	Original form	Final form
1	I like it that way	I would really like it
2	It must be that way	I would like it and expect it
3	I am neutral	I am neutral
4	I can live with it that way	I would dislike it, but could tolerate it
5	I dislike it that way	I would really dislike it

Source: Authors' own work

Table 4.
The original and
final answer form

			Dysfunctional – cannot/unable				
			1	2	3	4	5
			Really like	Like and expect	Neutral	Dislike but tolerate	Really dislike
		1 Really like	Q 0	A 4	A 19	A 41	O 13
		2 Like and expect	R 0	I 3	I 13	O 23	M 17
Functional		3 Neutral	R 0	I 2	I 24	I 3	M 0
Can/able		4 Dislike but tolerate	R 0	I 2	I 1	I 1	M 0
		5 Really dislike	R 0	R 0	R 2	R 0	Q 1

Source: Authors' own work

Table 5.
Pilot questionnaire
results

Results

Phase 1: identifying member needs

Qualitative results. In total, we uncovered 19 member needs using the qualitative methods. The complete list is available in Appendix 1. Here we describe five examples of how we uncovered the member needs from the qualitative data collection.

Knowledge exchange was one of the themes found in the interviews, and members had, to some extent, different perspectives on it as well. For some, learning was more closely tied to professional development and career building, while others were inspired by opportunities to get novel insights in a more general sense. The need (n1) "to learn new things from peers and events" was based on these observations. One member said:

> "I've met many consultants who work in recruitment. This is not something I primarily work with, but sometimes I get thrown into it and then I can get some support about how to use new platforms [. . .] a lot has happened the last five to ten years and then I can get help to learn that". (Self-employed)

Another need that many members touched on was the need "to be healthy" (n2). Perspectives on this need ranged from running groups with weekly activities to wishing for a gym in the coworking space and bringing up precarious or vulnerable situations in which many entrepreneurs find themselves when it comes to sickness:

> "My gym is close. It would be great if there was one in this building". (Employed by large organization)

> "[. . .] they had a gym which was a huge asset: to be able to combine the gym with working hours". (Employed by large organization)

The researchers also participated in digital workouts to decrease the risk of health-related issues connected to office work.

Social needs were a theme, including different needs. The need "to feel like a prioritized customer" (n9) was something almost all interviewed members related to. Some were impressed by the host's attention to detail and proactive service-oriented mind, while others expressed frustration in varying intensity when remembering situations in which this need was not met. One member noted:

> "[. . .] sometimes they come out with coffee and ask if someone wants some. It's that little extra [. . .] they are very good at it". (Self-employed)

Another member said:

> "You are standing there and there were supposed to be gluten free sandwiches but there are none. That person leaves hungry and angry". (Self-employed)

Another major theme in the data focused on productivity. One of the needs from this theme was "being able to work smoothly without technical disruptions" (n15). It was often connected to a feeling of relief of being able to work and not having to think about technical aspects, and irritation is expressed when technology is not working, taking focus from the tasks at hand. One member said in connection to a problem with a projector:

> "It's all these small things that can change the perception from "Wow, what a nice coworking space" to "This doesn't work". It's the small things that make or break the whole thing. It's not about how the interior is designed". (Self-employed)

The shared spaces that are central to coworking can also become an issue in other ways. The ability "to manage confidential information safely" (n17) was crucial to some members:

"We talk with companies about their future strategies and therefore we can't sit here and spread that because someone may start to understand which company we are talking to. We must sit separately. That is probably the hardest part. You run out all the time, back and forth, to find somewhere to take a phone call". (Employed by large organization)

Another member working in a publicly traded company said:

"We have a private office and can lock our door, but to have conversations and work with papers is still risky. Absolutely no one except us can hear this information. . .. The printer is not working as it should, so we have to use the computer in reception. But I would never put my USB in that computer". (Employed by large organization)

A final theme focused on business networking; an example of a need is to meet people that can lead to business opportunities (n3). Interviewees mentioned that they hoped to use new social contacts to gain business opportunities. A self-employed member mentioned:

"The real purpose here is to meet other people, people who can lead to business opportunities. I've done it a lot here". (Self-employed)

Phase 2: prioritizing member needs
The profile of respondents for the complete responses is provided in Appendix 2. Generally, it shows a wide range of demographic variation despite the relatively small sample size. It shows that 73% of respondents are 45 years or older, 60% are married and gender is equally divided (male and female). Many respondents work with business development (32%) and as consultants (39%). Only 20% of the respondents see the coworking space as something else than a place for work, and there is a noticeable number of people working in medium or large organizations (34%).

The Kano questionnaire data analysis resulted in classifying the needs as shown in Figure 2. For example, the need "to feel like a prioritized member" (n9) is categorized as one-dimensional (O). It means that the satisfaction of feeling prioritized is proportional to the level of provision; that is, a low level of fulfilment will leave members dissatisfied, while a high level will result in satisfied members. It has the highest percentage (57%, see Table 6) for a single category.

Other needs that are categorized with a majority share of respondents are "to be healthy" (n2, A), "to meet people that can lead to business opportunities" (n3, A), "to cooperate/collaborate with relevant actors" (n4, A), "to be able to work smoothly without technical disruptions" (n15, M) and "to have phone calls or conversations without disturbing others" (n16, M). This implies that member satisfaction can be significantly increased through higher fulfilment in terms of members' needs relating to being healthy, finding business leads through other members and cooperation and collaboration opportunities. It also shows that failing to offer members an infrastructure that allows them to work smoothly without disruptions as well as failing to provide a means to communicate without disturbing others will leave users dissatisfied.

Table 6 shows that most of the needs are not clearly classified in terms of their Kano category. Here, we refer to those needs that have a high degree of unanimity as clearly classified. We use the standard deviation as a measure of unanimity level. It can range from 0, indicating the lowest unanimity of respondents (completely unclear), to 0.5, indicating complete unanimity (completely clear). An example of a completely clear case is when every respondent classifies one need as one certain category (A = 100%, I = O=M = 0%), which we did not have in our empirical data. Take an example of the attractive (A) need "to be healthy" (n2), its standard deviation value is 0.23, which is moderately clear. Note that this
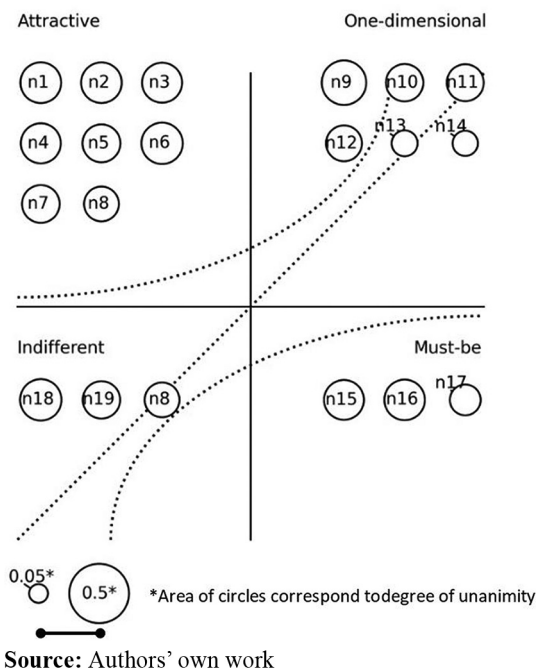
Figure 2.
Classifications of
member needs

Source: Authors' own work

value (0.23) is obtained from computing the standard deviation of the four numbers, namely, 54% (attractive), 32% (indifferent), 12% (one-dimensional) and 2% (must-be).

Discussions

Phase 1: identifying member needs

For Phase 1, we have uncovered 19 member needs in total (see Appendix 1). In the coworking literature, some of them have been mentioned as motivation to join a coworking space, such as the desire to be part of a community (Spinuzzi, 2012; Garrett *et al.*, 2017; Jakonen *et al.*, 2017; Butcher, 2018; Weijs-Perrée *et al.*, 2019; Appel-Meulenbroek *et al.*, 2020) or find networking opportunities (Gandini, 2015; Ross and Ressia, 2015; Brown, 2017; Clifton *et al.*, 2019; van Dijk, 2019; Weijs-Perrée *et al.*, 2019; Appel-Meulenbroek *et al.*, 2020). As argued previously, motivations are not always the same as needs. Another example for a motivation but not a need is "to seek a professional address in order to appear more professional in front of clients" (Tremblay and Scaillerez, 2020). The need could be "to gain trust from clients". Knowing the different motivations as to why people join a coworking space is more relevant for attracting potential members than maintaining the existing ones. Coworking providers may need to go beyond motivation to maintain the existing members, that is, to understand their basic needs.

Another term close to motivation, as mentioned previously, is preference. User preferences in coworking spaces have been studied in the Netherlands (Weijs-Perrée *et al.*, 2019), Germany, the Czech Republic (Appel-Meulenbroek *et al.*, 2020) and Nigeria (Ayodele *et al.*, 2021). Although knowing user preferences is important, we assert that user preferences are not the same as user needs. User preferences are often related to solutions rather than to the underlying member needs. Furthermore, user preferences such as

Label	Need	Overall (n = 57) Avg degree of unanimity = 0.20					Question formulation
		I	A	O	M	Degree of unanimity	
n1	To learn new things from peers and events	0.28	*0.57*	0.10	0.05	0.23	How do you feel: if you are able/unable to learn new things at your coworking space (e.g. from events or other members)?
n2	To be healthy	0.32	*0.54*	0.12	0.02	0.23	How do you feel: if you can/cannot get help to increase or sustain a healthy lifestyle at your coworking space?
n3	To meet people that can lead to business opportunities	0.34	*0.52*	0.12	0.02	0.22	How do you feel: if you can/cannot get the opportunity to meet people that might lead to business opportunities at your coworking space?
n4	To cooperate/collaborate with relevant actors	0.34	*0.52*	0.12	0.02	0.22	How do you feel: if you are able/unable to cooperate with individuals relevant to your work or business at your coworking space?
n5	To know which other companies are members and what they do	0.31	*0.50*	0.16	0.03	0.20	How do you feel: if you are provided/not provided with a way to see which companies are members at your coworking space and their competencies?
n6	To be able to receive help or input from others	0.45	*0.47*	0.07	0.02	0.24	How do you feel: if you can/cannot get help or input from other members at your coworking space?
n7	To be able to market one's business	0.38	*0.45*	0.16	0.02	0.20	How do you feel: if you can/cannot market your business at your coworking space?
n8	To belong to a community	*0.39*	*0.39*	0.19	0.04	0.17	How do you feel: if you can/cannot be a part of a community at your coworking space?
n9	To feel like a prioritized customer	0.00	0.03	*0.57*	0.40	0.28	How do you feel: if the personnel are/are not responsive and willing to help you at your coworking space?
n10	To feel welcomed at one's workplace	0.00	0.19	*0.43*	0.38	0.20	How do you feel: if the space and the personnel provide/don't provide you with a welcoming feeling at your coworking space?
n11	That one's workplace leaves a good impression on guests	0.05	0.12	*0.43*	0.40	0.19	How do you feel: if your coworking space can/cannot make a good impression on your guests?
n12	To be able to choose a suitable work area	0.07	0.40	*0.41*	0.12	0.18	How do you feel: if you are able/unable to choose a room or work-area based on your current needs at your coworking space?
n13	To have a workplace that gives you energy	0.16	0.28	*0.37*	0.19	0.09	How do you feel: if you can/cannot get energy from being at your coworking space?
n14	To be transparent when meeting others	0.28	0.28	*0.33*	0.12	0.09	How do you feel: if you can/cannot be genuine when meeting others without thinking about consequences for your business at your coworking space?
n15	To be able to work smoothly without technical disruptions	0.03	0.10	0.34	*0.52*	0.22	How do you feel: if you are able/unable to work smoothly at your coworking space (without disruptions from e.g. wifi connection, printer, projector)?
n16	To have phone calls or conversations, without disturbing others	0.00	0.12	0.37	*0.51*	0.23	How do you feel: if you can/cannot answer a call or have a conversation without disturbing others at your coworking space?
n17	To be able to manage confidential information safely	0.07	0.24	0.31	*0.38*	0.13	How do you feel: if you can/cannot manage and talk about confidential information in a safe way at your coworking space?
n18	To feel in control of social interactions	*0.49*	0.42	0.07	0.02	0.24	How do you feel: if you are provided/not provided with a way to show whether you are willing to socially interact at your coworking space?
n19	To be able to share knowledge/competence	*0.45*	0.38	0.14	0.03	0.20	How do you feel: if you can/cannot share your knowledge and competence at your coworking space?

Table 6.
Kano questionnaire
results and questions

"strategic location" or "flexible contract options" are more important for attracting new members than for maintaining the existing ones. They do not provide much insight into what the coworking providers can do to improve their spaces; for example, moving to a more strategic location will require a lot of investment. However, a better understanding of the members' needs provides a basis on where to direct the improvement efforts in a more cost-effective way. The next step is to ask which member needs should be addressed first. Does the fulfilment of certain needs have different impacts on member satisfaction? We answered such questions using the theory of attractive quality, also known as the Kano model (Witell *et al.*, 2013).

Phase 2: prioritizing member needs
The prioritization of member needs should start with the must-be (M) need, one-dimensional (O) need, attractive (A) need, then indifferent (I) need. This is to ensure that those basic needs are not overlooked. In other words, coworking providers need to make sure that those under the must-be (M) needs are first taken care of before trying to satisfy the one-dimensional (O) or even the attractive (A) ones.

Therefore, it is important to first provide members with a work environment without technical disruptions (n15), opportunities for conversations or phone calls without disturbing others (n16) and assurance to handle confidential information safely (n17). Given the focus in coworking on engagement with others (Privett, 2020), it is interesting that a clear majority will be dissatisfied if they are unable to converse without disturbing others. For providers, this may call for a sociomateriality perspective which addresses the issues of how the coworking space's interior design and architecture can incorporate emotional and social values that may benefit its members (Bouncken *et al.*, 2021). Furthermore, since the coworking space in this study has members from diverse backgrounds (see Appendix 2), the co-existence of different logics of the members, namely, social and business logics (Bouncken and Tiberius, 2023), to some extent, may explain why these needs are must-be ones.

The next category to look at after the must-be needs is the one-dimensional (O) needs. We uncovered six needs in this category (n9–n14). Among those, the top three highlight the importance of a service that is welcoming to the members, the feeling of being treated as a prioritized customer and leaving a good impression on guests. Such aspects turned out to be important in our results and, in recent years, have been discussed in coworking literature as relevant (Gregg and Lodato, 2018; Merkel, 2019b; Waters-Lynch and Duff, 2021).

Providing service solutions for meeting the must-be and one-dimensional needs is good, but it may not be enough to delight the members. To raise the bar, one can direct the attention towards the needs that are attractive (A) or indifferent (I). It is worth noting that the results confirm the theory of quality attributes' dynamics (Löfgren and Witell, 2008; Witell and Fundin, 2005), that is, an attractive need is often first perceived as an indifferent one, then once it becomes attractive, it may change to one-dimensional and then must-be with the passage of time. This phenomenon can easily be seen in the percentages of the adjacent categories. For example, those needs that have the largest percentage in the attractive category (n1–n7) have the second largest percentage in the indifferent category. Likewise, those in the indifferent category (n18–n19) have the second-largest percentage in the attractive category.

For the attractive category, we uncovered needs that relate to many of the mentioned benefits of coworking, such as learning new things and benefiting from others' input (Bouncken and Aslam, 2019; Parrino, 2015) as well as being able to partake in collaborative endeavours (Castilho and Quandt, 2017). In addition, the need "to be healthy" is also

classified as attractive by most respondents. It is something extra on top of what usually comes to mind in regard to coworking. It should therefore be either indifferent to members or a delight.

It is worth highlighting that the need to belong to or be part of a community is not classified as a one-dimensional attribute but instead as an attractive or indifferent one. Given its strong position in previous research (Blagoev *et al.*, 2019; Butcher, 2018; Garrett *et al.*, 2017; Spinuzzi *et al.*, 2019) and coworking being an experience based on shared values (Privett, 2020), our expectation was for more respondents to classify this as a one-dimensional or must-be attribute. It seems that what is often stated in coworking literature can be contingent upon members' experiences and local contexts. This also confirms that Kano model classification depends on situational factors (Matzler *et al.*, 2004).

To sum up, our results contribute to an increased understanding of member needs in coworking. Particularly, it seems that prior research has focused primarily on aspects that delight coworking users, at the expense of those that are also evidently important, that is, needs that are classified as one-dimensional or must-be.

Managerial implications
The strategic implications are that the coworking space providers should first make sure their members are provided with an infrastructure that enables smooth and undisrupted work and conversations that do not disturb other coworkers. These are unspoken needs, but they must never be overlooked, since failing to meet these needs might lead to a loss of customers. However, it is important to remember not to overdeliver in these aspects; when a satisfactory level of provision is reached, improvement efforts are more effectively turned towards the spoken needs, such as making the members feel prioritized and welcomed. To delight the members, the coworking space provider is encouraged to develop avenues for reciprocal learning, sharing business and collaboration leads as well as ways to increase or sustain a healthy lifestyle. Although these needs are unspoken, putting effort into satisfying them is also a way to be proactive and retain members over a longer time, assuming that those must-be and one-dimensional needs are well taken care of. Finally, the coworking providers are also challenged by the fact that the attractive needs, with the passage of time, will eventually become one-dimensional and must-be needs in the future.

Conclusions and limitations
The aim of this paper was to identify and prioritize coworking member needs. Research into understanding and managing member needs in coworking spaces has been scarce in the literature. The Kano model has been shown to be useful in prioritizing various member needs. This helps coworking space providers strategically prioritize what to focus on when allocating their resources for improving their spaces or developing innovative service offerings or solutions. It simply helps avoid doing the wrong things right (e.g. putting a lot of effort on meeting attractive needs but neglecting the must-be ones) and hence puts emphasis on the effectiveness of improvement efforts.

There are some limitations of this research. First, the sample size is small, affecting primarily its generalizability. Furthermore, our sample has a higher proportion of larger companies than that of previous research (Deskmag, 2019b; Weijs-Perrée *et al.*, 2019). This might have impacted the results, which in turn also affects its generalizability. The Kano model was based on survey data from the biggest coworking space, which is in a relatively higher price range than the other two coworking spaces in the city. This might lead to a potential sample bias. Second, for some of the needs, the standard deviation's magnitude is relatively low, reflecting a low level of unanimity among the respondents (e.g. n13–n14).

This can be seen from the almost equally large percentage of several categories for the same need. In this case, given a sufficiently larger sample, a cluster analysis to detect different member segments can be performed. Further research can employ the same method in new contexts to challenge and contrast our findings.

References

Appel-Meulenbroek, R., Weijs-Perrée, M., Orel, M., Gauger, F. and Pfnür, A. (2020), "User preferences for coworking spaces; a comparison between The Netherlands, Germany and the Czech Republic", *Review of Managerial Science*, Vol. 15 No. 7, pp. 2025-2048.

Ayodele, T.O., Ogunbayo, O.T., Kajimo-Shakantu, K. and Babatunde, T. (2021), "Coworking space practices: assessing space users' preferences and challenges in Ibadan, Nigeria", *Journal of Corporate Real Estate*, Vol. 24 No. 4, pp. 256-272.

Berger, C., Blauth, R. and Boger, D. (1993), "Kano's methods for understanding member-defined quality", *Center for Quality Management Journal*, Vol. 2 No. 4, pp. 3-36.

Bilandzic, M. and Foth, M. (2013), "Libraries as co-working spaces: understanding user motivations and perceived barriers to social learning", *Library Hi Tech*, Vol. 31 No. 2, pp. 254-273.

Blagoev, B., Costas, J. and Kärreman, D. (2019), "We are all herd animals': community and organizationality in coworking spaces", *Organization*, Vol. 26 No. 6, pp. 894-916.

Bouncken, R. and Aslam, M.M. (2019), "Understanding knowledge exchange processes among diverse users of coworking-spaces", *Journal of Knowledge Management*, Vol. 23 No. 10, pp. 2067-2085.

Bouncken, R. and Reuschl, A. (2018), "Coworking-spaces: how a phenomenon of the sharing economy builds a novel trend for the workplace and for entrepreneurship", *Review of Managerial Science*, Vol. 12 No. 1, pp. 317-334.

Bouncken, R.B. and Tiberius, V. (2023), "Legitimacy processes and trajectories of co-prosumption services: insights from coworking spaces", *Journal of Service Research*, Vol. 26 No. 1, pp. 64-82.

Bouncken, R., Aslam, M.M. and Qiu, Y. (2021), "Coworking spaces: understanding, using, and managing sociomateriality", *Business Horizons*, Vol. 64 No. 1, pp. 119-130.

Bouncken, R.B., Aslam, M.M., Gantert, T.M. and Kallmuenzer, A. (2023), "New work design for knowledge creation and sustainability: an empirical study of coworking-spaces", *Journal of Business Research*, Vol. 154, p. 113337.

Bouncken, R., Laudien, S.M., Fredrich, V. and Görmar, L. (2018), "Coopetition in coworking-spaces: value creation and appropriation tensions in an entrepreneurial space", *Review of Managerial Science*, Vol. 12 No. 2, pp. 385-410.

Brown, J. (2017), "Curating the 'third place'? coworking and the mediation of creativity", *Geoforum*, Vol. 82, pp. 112-126.

Bryman, A. and Bell, E. (2011), *Business Research Methods*, 3rd ed., Oxford University Press, Oxford.

Bueno, S., Rodríguez-Baltanás, G. and Gallego, M.D. (2018), "Coworking spaces: a new way of achieving productivity", *Journal of Facilities Management*, Vol. 16 No. 4, pp. 452-466.

Butcher, T. (2018), "Learning everyday entrepreneurial practices through coworking", *Management Learning*, Vol. 49 No. 3, pp. 327-345.

Cabral, V. and Winden, W.V. (2016), "Coworking: an analysis of coworking strategies for interaction and innovation", *International Journal of Knowledge-Based Development*, Vol. 7 No. 4, pp. 357-377.

Castilho, M.F. and Quandt, C.O. (2017), "Collaborative capability in coworking spaces: convenience sharing or community building?", *Technology Innovation Management Review*, Vol. 7 No. 12, pp. 32-42.

Cheah, S. and Ho, Y.-P. (2019), "Coworking and sustainable business model innovation in young firms", *Sustainability*, Vol. 11 No. 10, p. 2959.

Clancey, W.J. (2006), "Observation of work practices in natural settings", in Ericsson, A., Charness, N., Feltovich, P. and Hoffman, R. (Eds), *The Cambridge Handbook of Expertise and Expert Performance*, Cambridge University Press, New York, NY, pp. 127-145.

Clifton, N., Füzi, A. and Loudon, G. (2019), "Coworking in the digital economy: context, motivations, and outcomes", *Futures*, Vol. 135, p. 102439.

CQM (1993), "A special issue on Kano's methods for understanding member-defined quality", *The Center for Quality Management Journal*, Vol. 2 No. 4, pp. 3-35.

Dace, E., Stibe, A. and Timma, L. (2020), "A holistic approach to manage environmental quality by using the Kano model and social cognitive theory", *Corporate Social Responsibility and Environmental Management*, Vol. 27 No. 2, pp. 430-443.

de Peuter, G., Cohen, N.S. and Saraco, F. (2017), "The ambivalence of coworking: on the politics of an emerging work practice", *European Journal of Cultural Studies*, Vol. 20 No. 6, pp. 687-706.

Deci, E. and Ryan, R. (2014), "The importance of universal psychological needs for understanding motivation in the workplace", in Gagné, M. (Ed.), *The Oxford Handbook of Work Engagement, Motivation, and Self-Determination Theory*, Oxford Library of Psychology, Oxford, pp. 13-32.

Deskmag (2019a), "2019 Coworking forecast: final results", available at: www.deskmag.com/en/coworking-news/2019-state-of-coworking-spaces-2-million-members-growth-crisis-market-report-survey-study (accessed March 2023).

Deskmag (2019b), "2019 Member demographics", available at: https://coworkingstatistics.com/coworkingstatistics/members-of-coworking-spaces (accessed April 2020).

Engelen, B. (2017), "A new definition of and role for preferences in positive economics", *Journal of Economic Methodology*, Vol. 24 No. 3, pp. 254-273.

Gandini, A. (2015), "The rise of coworking spaces: a literature review", *Ephemera: Theory & Politics in Organization*, Vol. 15 No. 1, pp. 193-205.

Garrett, L.E., Spreitzer, G.M. and Bacevice, P.A. (2017), "Co-constructing a sense of community at work: the emergence of community in coworking spaces", *Organization Studies*, Vol. 38 No. 6, pp. 821-842.

Gauger, F., Pfnür, A. and Strych, J.O. (2021), "Coworking spaces and start-ups: empirical evidence from a product market competition and life cycle perspective", *Journal of Business Research*, Vol. 132, pp. 67-78.

Gerdenitsch, C., Scheel, T.E., Andorfer, J. and Korunka, C. (2016), "Coworking spaces: a source of social support for independent professionals", *Frontiers in Psychology*, Vol. 7, p. 581.

Grazian, D. (2020), "Thank god it's Monday: Manhattan coworking spaces in the new economy", *Theory and Society*, Vol. 49 Nos 5/6, pp. 991-1019.

Gregg, M. and Lodato, T. (2018), "Managing community: coworking, hospitality and the future of work", in Röttger-Rössler, B. and Slaby, J. (Eds), *Affect in Relation. Families, Places, Technologies*, Routledge, New York, NY, pp. 175-196.

Herzberg, F., Mausner, B. and Snyderman, B.B. (1959), *The Motivation to Work*, Wiley, New York, NY.

Howell, T. (2022a), "Coworking spaces: an overview and research agenda", *Research Policy*, Vol. 51 No. 2, p. 104447.

Howell, T. (2022b), "Coworking spaces offer a post-pandemic office alternative", *MIT Sloan Management Review*, Vol. 63 No. 2, pp. 1-3.

Ivaldi, S. and Scaratti, G. (2019), "'Coworking hybrid activities between plural objects and sharing thickness', TPM: testing, psychometrics", *Methodology in Applied Psychology*, Vol. 26 No. 1, pp. 121-147.

Ivaldi, S., Sannino, A. and Scaratti, G. (2021), "Is 'co' in coworking a short for contradictions?", *Qualitative Research in Organizations and Management: An International Journal*, Vol. 17 No. 5, pp. 38-63.

Jakonen, M., Kivinen, N., Salovaara, P. and Hirkman, P. (2017), "Towards an economy of encounters? A critical study of affectual assemblages in coworking", *Scandinavian Journal of Management*, Vol. 33 No. 4, pp. 235-242.

Kano, N., Seraku, N., Takahashi, F. and Tsuji, S. (1984), "Attractive quality and must-be quality", *The Journal of the Japanese Society for Quality Control*, Vol. 14 No. 2, pp. 39-48.

Kojo, I. and Nenonen, S. (2016), "Typologies for co-working spaces in Finland – what and how?", *Facilities*, Vol. 34 Nos 5/6, pp. 302-313.

Kraus, S., Bouncken, R.B., Görmar, L., González-Serrano, M.H. and Calabuig, F. (2022), "Coworking spaces and makerspaces: mapping the state of research", *Journal of Innovation and Knowledge*, Vol. 7 No. 1, p. 100161.

Lashani, E. and Zacher, H. (2021), "Do we have a match? Assessing the role of community in coworking spaces based on a person-environment fit framework", *Frontiers in Psychology*, Vol. 12, p. 225.

Lejoux, P., Flipo, A., Ortar, N., Ovtracht, N., Souche-Lecorvec, S. and Stanica, R. (2019), "Coworking, a way to achieve sustainable mobility? Designing an interdisciplinary research project", *Sustainability*, Vol. 11 No. 24, p. 7161.

Löfgren, M. and Witell, L. (2008), "Two decades of using Kano's theory of attractive quality: a literature review", *The Quality Management Journal*, Vol. 15 No. 1, pp. 59-75.

Luor, T., Lu, H.P., Chien, K.M. and Wu, T.C. (2015), "Contribution to quality research: a literature review of Kano's model from 1998 to 2012", *Total Quality Management and Business Excellence*, Vol. 26 Nos 3/4, pp. 234-247.

Materla, T., Cudney, E.A. and Antony, J. (2019), "The application of Kano model in the healthcare industry: a systematic literature review", *Total Quality Management and Business Excellence*, Vol. 30 Nos 5/6, pp. 660-681.

Matzler, K. and Hinterhuber, H.H. (1998), "How to make product development projects more successful by integrating Kano's model of member satisfaction into quality function deployment", *Technovation*, Vol. 18 No. 1, pp. 25-38.

Matzler, K., Fuchs, M. and Schubert, A. (2004), "Employee satisfaction: does Kano's model apply?", *Total Quality Management and Business Excellence*, Vol. 15 Nos 9/10, pp. 1179-1198.

Merkel, J. (2019a), "'Freelance isn't free.' Co-working as a critical urban practice to cope with informality in creative labour markets", *Urban Studies*, Vol. 56 No. 3, pp. 526-547.

Merkel, J. (2019b), "Curating strangers", in Gill, R., Pratt, A. and Virani, T. (Eds), *Creative Hubs in Question. Dynamics of Virtual Work*, Palgrave Macmillan, London, pp. 51-68.

Ohnmacht, T., Z'Rotz, J. and Dang, L. (2020), "Relationships between coworking spaces and CO_2 emissions in work-related commuting: first empirical insights for the case of Switzerland with regard to urban-rural differences", *Environmental Research Communications*, Vol. 2 No. 12, p. 125004.

Orel, M. and Bennis, W.M. (2021), "Classifying changes. A taxonomy of contemporary coworking spaces", *Journal of Corporate Real Estate*, Vol. 23 No. 4, pp. 278-296.

Pandey, A., Sahu, R. and Joshi, Y. (2020), "Kano model application in the tourism industry: a systematic literature review", *Journal of Quality Assurance in Hospitality and Tourism*, Vol. 23 No. 1, pp. 1-31.

Parrino, L. (2015), "Coworking: assessing the role of proximity in knowledge exchange", *Knowledge Management Research and Practice*, Vol. 13 No. 3, pp. 261-271.

Privett, I. (2020), "Experience unbound: the effects of coworking on workplace design practice", PhD Thesis, Royal College of Art, London, UK.

Robelski, S., Keller, H., Harth, V. and Mache, S. (2019), "Coworking spaces: the better home office? A psychosocial and health-related perspective on an emerging work environment", *International Journal of Environmental Research and Public Health*, Vol. 16 No. 13, p. 2379.

Ross, P. and Ressia, S. (2015), "Neither office nor home: coworking as an emerging workplace choice", *Employment Relations Record*, Vol. 15 No. 1, p. 42.

Scupin, R. (1997), "The KJ method: a technique for analyzing data derived from Japanese ethnology", *Human Organization*, Vol. 56 No. 2, pp. 233-237.

Spinuzzi, C. (2012), "Working alone together: coworking as emergent collaborative activity", *Journal of Business and Technical Communication*, Vol. 26 No. 4, pp. 399-441.

Spinuzzi, C., Bodrožic, Z., Scaratti, G. and Ivaldi, S. (2019), "'Coworking is about community': but what is 'community' in coworking?", *Journal of Business and Technical Communication*, Vol. 33 No. 2, pp. 112-140.

Statista (2020), "Number of coworking spaces worldwide from 2018 to 2020 with a forecast to 2024", available at: www.statista.com/statistics/554273/number-of-coworking-spaces-worldwide/ (accessed March 2023).

Tremblay, D. and Scaillerez, A. (2020), "Coworking spaces: new places for business initiatives?", *Journal of Innovation Economics and Management*, Vol. 31 No. 1, pp. 39-67.

Ulwick, A.W. and Bettencourt, L.A. (2008), "Giving members a fair hearing", *MIT Sloan Management Review*, Vol. 49 No. 3, pp. 62-68.

van Dijk, S. (2019), "At home in the workplace: the value of materiality for immaterial labor in Amsterdam", *European Journal of Cultural Studies*, Vol. 22 No. 4, pp. 468-483.

Vidaillet, B. and Bousalham, Y. (2018), "Coworking spaces as places where economic diversity can be articulated: towards a theory of Syntopia", *Organization*, Vol. 27 No. 1, pp. 60-87.

Waters-Lynch, J. and Duff, C. (2021), "Coworking's cooperation paradox: on the role of stigmergic curation", in Orel, M., Dvouletý, O. and Ratten, V. (Eds), *The Flexible Workplace: Coworking and Other Modern Workplace Transformations*, Springer International publishing, Cham, pp. 133-156.

Waters-Lynch, J. and Potts, J. (2017), "The social economy of coworking spaces: a focal point model of coordination", *Review of Social Economy*, Vol. 75 No. 4, pp. 417-433.

Weijs-Perrée, M., van de Koevering, J., Appel-Meulenbroek, R. and Arentze, T. (2019), "Analysing user preferences for co-working space characteristics", *Building Research and Information*, Vol. 47 No. 5, pp. 534-548.

Weinstein, N. and Ryan, R.M. (2010), "When helping helps: autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient", *Journal of Personality and Social Psychology*, Vol. 98 No. 2, p. 222.

Witell, L. and Fundin, A. (2005), "Dynamics of service attributes: a test of Kano's theory of attractive quality", *International Journal of Service Industry Management*, Vol. 16 No. 2, pp. 152-168.

Witell, L., Löfgren, M. and Dahlgaard, J.J. (2013), "Theory of attractive quality and the Kano methodology – the past, the present, and the future", *Total Quality Management and Business Excellence*, Vol. 24 Nos 11/12, pp. 1241-1252.

Yacoub, G. and Haefliger, S. (2022), "Coworking spaces and collaborative practices", *Organization*, Vol. 31 No. 1, p. 13505084221074037.

Further reading

Aslam, M.M., Bouncken, R. and Görmar, L. (2021), "The role of sociomaterial assemblage on entrepreneurship in coworking-spaces", *International Journal of Entrepreneurial Behavior and Research*, Vol. 27 No. 8, pp. 2028-2049.

Bergman, B. and Klefsjö, B. (2003), *Quality from Member Needs to Member Satisfaction*, Studentlitteratur, Lund, Sweden.

Griffin, A. and Hauser, J.R. (1993), "The voice of the member", *Marketing Science*, Vol. 12 No. 1, pp. 1-27.

Johns, T. and Gratton, L. (2013), "The third wave of virtual work", *Harvard Business Review*, Vol. 91 No. 1, pp. 66-73.

Rothe, P., Lindholm, A.-L., Hyvönen, A. and Nenonen, S. (2011), "User preferences of office occupiers: investigating the differences", *Journal of Corporate Real Estate*, Vol. 13 No. 2, pp. 81-97.

Appendix 1

Need	Description	Example of quotes
n1	To learn new things from peers and events	"Seminars, lunches, they're only 45 minutes which is optimal, you can always make room for it in your schedule. But I've also learnt a lot from the consultants here, for me it's a form of professional development"
n2	To be healthy	"I usually get a lot done after I've been at the gym in the afternoon. [The last coworking space] had a gym in the basement, which was a huge advantage, to be able to combine the gym with my work hour"
n3	To meet people that can lead to business opportunities	"The real purpose here is to meet other people, people who can lead to business opportunities"
n4	To cooperate/collaborate with relevant actors	"The idea of these types of places is to connect people and develop cooperation"
n5	To know which other companies are members and what they do	"Nobody knows who sits here. There's a sign at the main entrance, and there's just a company name. . . .I think that's a big downside if you're interested in getting to know who the other companies are"
n6	To be able to receive help or input from others	"I've met several recruiting consultants here. They've helped me on some occasions with all the new platforms"
n7	To be able to market one's business	"No, there are very few ways to do that. You can add it [the company name] to the app [the app for the coworking space], ... Other than that, there's nothing, only your name at the entrance, and they [the coworking space provider] are rather strict in that sense, in not allowing us to market ourselves here"
n8	To belong to a community	"I could have chosen to work from home, but I felt that I wanted to be a part of a community. Otherwise, you'll easily become quite lonely when self-employed [. . .]"
n9	To feel like a prioritized customer	"They [the hosts] really know how to serve their customers beyond just providing a place to work at. Sometimes they come up to you and ask if you want a coffee. It's all these small things you know. . ."
n10	To feel welcomed at one's workplace	"It is very important that the first person you see, like the host, is pleasant and welcoming as a person"
n11	That one's workplace leaves a good impression on guests	"It's a nice environment to invite potential investors and partners to. It affects how we present ourselves"
n12	To be able to choose a suitable work area	"When you're trying to solve something like that [referring to a complex problem], you often go to a room and 'whiteboard it' out and try to solve it"
n13	To have a workplace that gives you energy	"I'm a person that gets energized when there's things happening around me: life and movement. I don't necessarily need to work with them, but I need to work next to where things are happening"
n14	To be transparent when meeting others	But I think that it's difficult [to be transparent] in these kinds of places since you never know: "What's your agenda? Can we have business together?' In that case, I don't want to be completely transparent because you don't say to a customer, 'Business sucks at the moment.' Then, all chances for business with that person are gone. You only say that if you feel 'I can trust you"

(continued)

Table A1.
Identified member needs

Need	Description	Example of quotes
n15	To be able to work smoothly without technical disruptions	"Because I'm a novice when it comes to everything technical, I feel confident that I get the help I need. To connect to the internet, use a projector, any technical aspects really"
n16	To have phone calls or conversations without disturbing others	"[…] these open landscapes, if you have many phone calls and talk loudly like I do, it creates a possibility for conflict with other members [...] They get disturbed when you talk on the phone. Often you don't have access to an office and then you have nowhere to go"
n17	To be able to manage confidential information safely	"We talk with companies about their future strategies and therefore we can't sit here and spread that because someone may know which company we are talking to. We have to sit alone. That is probably the hardest part. You run out all the time, back and forth, to find somewhere to take a phone call"
n18	To feel in control of social interactions	"When I come here, I know half of the people, so I can't just go and hide. Sometimes I feel as if half of my time is used up just for saying hi to everyone. They want to tell me something, while my only wish is to pick up my computer and start working"
n19	To be able to share knowledge/competence	"I can contribute with something that I know because they had a problem with their computer. Then I enter their room and fix some issues with their computers, and they think I'm awesome"

Source: Authors' own work

Appendix 2

Demographics		n^*	%
Gender	Female	28	51
	Male	27	49
Age	<25	1	2
	25–34	6	11
	35–44	8	14
	45–54	22	39
	55–64	19	34
Relationship status	Married	33	60
	In a relationship (not married)	15	27
	Single	7	13
Kids under the age of 15 at home	Yes	21	38
	No	34	62
Profession**	Business development	18	32
	Accounting and office administration	7	13
	Design (graphics, Web, products, games)	3	5
	Management position	6	11
	IT (programming, software development)	2	4
	Consultant	22	39
	PR (marketing, sales, advertising, communication)	7	13
	Project management (event, community, culture)	2	4
	Education (coaching, training, tutoring)	4	7
	Other	5	9
Work-related characteristics			
Primary view of coworking space	A place for work	45	80
	A place for business/social exchange	10	18
	Other	1	2
Type of membership	Business lounge	13	23
	Flex office	19	34
	Private office	21	38
	Not applicable	3	5
Tenure	<4 months	7	13
	4–12 months	12	22
	1–2 years	15	27
	>2 years	21	38
Employment status	Self-employed	16	29
	Freelancer	1	2
	Small company (<50 people)	20	36
	Medium company (50–250 people)	9	16
	Large company (>250 people)	10	18

Table A2.
Survey respondent profiles

Note: *A few respondents did not answer all/some questions; **Respondents were asked to pick one or two alternatives
Source: Authors' own work

Corresponding author
Hendry Raharjo can be contacted at: hendry@chalmers.se