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Fitness- and Healthcenter evaluation by resigned members

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Abstract

The aim of the study is to examine if and to what extent the evaluations of fitness studios by persons who have recently resigned from their membership are related to general studio conditions such as studio atmosphere, facilities, trainer's competence and other features. In other words, the question is whether there are typical prioritizations on positive or negative evaluations by dropouts from fitness sport. In the survey a total of 225 people, who had quitted their membership in the past, were questioned in a telephone inquiry. The study was conducted in a health-oriented fitness center in a major city in Germany. At the time of the study the fitness facility had up to 1.151 memberships. Among them, 59% of the members were women and 41% were men. The average age of the respondents was 43.5 years. The average duration of membership added up to 4.4 years. Overall, the various aspects of the studio offer and its surroundings were mostly rated as "good". The respondents appreciated particularly the coaches (friendliness, helpfulness, competence), followed by opening hours, trial training and the first impression. The membership costs and individual aspects such as space, music and ventilation are assessed more critically, if not really badly.

The data show that the various evaluation aspects were clearly assessed differently by the respondents, and that there was apparently little generalized information on the studio evaluation.

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Introduction

In the statistical analyses presented here, we examine the evaluations of a fitness studio by persons who have just given up the activity in this sports facility. We examine the question as to which are the characteristics of the individual evaluation aspects by dropouts. Furthermore, we examine the extent to which these evaluations differ from one another. Thus, we aim to answer the question whether there are typical prioritizations on positive or negative evaluations by dropouts from fitness sport.

For many years the number of fitness clubs is almost stagnating. The fitness line is also marked by an annual fluctuation of total membership numbers. High customer fluctuation, however, significantly complicate long-term financial and staff-wise arrangements. But how is it that dropouts occur in fitness clubs at all? In order to answer this question, we need to identify the different needs of the customers in the first place. In the evaluations and statistical analyses presented here, the question is how strong the various reasons for abandoning activities in a fitness studio are. We also examine whether there are typical priorities in the drop-out justification and which reasons are used, in a statistically significant way, more or less or not at all (Zarotis et al., 2017).

Brehm and Eberhardt (1995) questioned fitness studio members about their reasons for quitting training because they had not renewed their contract. The major reason for quitting the activity

was the “lack of fun in the sporting activities”. Also important for the quitting decision were “motivation problems” (e.g., laziness), “lack of time” (often due to heavy workload) and “financial reasons” (too expensive membership fees). In response to an open question about the specific quitting reasons, the members criticized the “studio atmosphere” (too impersonal) as well as the “lack of social support” (e.g. no contact with other members, partner has quit the training, etc.) and also the “high membership costs” (e.g. for additional services like childcare) were viewed critically. This shows that quitting a sports program always depends on personal as well as situational characteristics (Rampf, 1999). Although it is possible to identify specific reasons which finally lead to dropping out, the participation behavior is affected by a complex factor structure.

Dishman (1982, 1998) several times remarks critically on the often-unsystematic approach of many studies and describes them as a-theoretical. This lack of standardization of theories and examination methods restricts the comparability of the studies considerably. Especially the limited data base and the lack of uniform models complicate the research.

Method

A total of 225 people, who had terminated their contract in the past, were questioned by a telephone inquiry about their decision. The advantages of the telephone survey are the low cost per interview, the possibility of responding to queries and the high external validity (Homburg & Krohmer, 2008).

The study was conducted in a health-oriented fitness center in a major city in Germany in July 2016. At the time of the study, the gym had up to 1.151 memberships. Among them 59% of the members were women and 41% were men. The average age of the respondents was 43.5 years. The average duration of membership added up to 4.4 years. The respondents were persons who have terminated their contract in the period between July 2015 and July 2016. In this period 305 members departed, of those 225 persons were found and questioned. 54 people could not be found, probably due to a relocation or change of the telephone number. 26 persons did not wish to participate in the survey (Zarotis & Tokarski, 2005, Zarotis et al. 2017).

The persons were asked about the importance of different reasons for their decision to leave the gym. They were asked to rank the importance of each of these 19 reasons for leaving in a five-point Likert scale. The scaling ranged from “does not apply at all” (coded with the numerical value 1) and “applies strongly” (coded with the numerical value 5). The three intermediate stages were not verbally expressed in the questionnaire; only the polarity of the scale was verbalized over the two extreme points. Thus, the total of 19 individual subjects were considered as scale marks regarding the significance of individual quitting reasons even in the strict meaning of the metric theory, which in statistical evaluation makes the calculation of mean values and the use of parametric statistical methods possible.

In most of the questionnaire items there were no response refusals, so that in 14 of the 19 questionnaires there are valid values even N = 225. In three items there was a missing value, i.e. a person refused to respond, in one item there were 2 missing values and in another item 3 missing values.

In the data analysis, the sample characteristics are initially described in terms of “gender distribution”, “age” (in years and in age categories) and “duration of membership in the studio”. Respondents’ age data were divided into the following four age categories:

Age category 1	Respondents up to 25 years old
Age category 2	Respondents between 26 and 40 years old
Age category 3	Respondents between 41 and 55 years old
Age category 4	Respondents from 56 years old and over

The 19 studio evaluations are described descriptively on the basis of the distribution characteristic values: mean, median and standard deviation.

A variance analysis with measurement repetition factor is calculated to ensure the inferential statistic of the differences between studio evaluations. The variance analysis checks the empirical data of the sample against the null hypothesis that in total all evaluation aspects basically have the same central tendency.

It is, of course, to be expected that the sample data will contradict this null hypothesis, since the assumption that all studio evaluations are in fact the same is really not plausible. The variance analysis initially provides only an "Overall" -significance test, whether there is somewhere any difference between the evaluations.

More important than the question of whether there is any difference between the quitting reasons, is the question of which evaluations are comparatively particularly positive or negative.

For this purpose, one could theoretically make full pairwise individual comparisons. However, this is impractical for two reasons:

The number of required pairwise individual comparisons is 171 (18 + 17 + 16 + ... + 2 3 + 1) individual comparisons. This is very unclear because of the variety of the individual results.

In this variety of individual comparisons via T-tests for connected samples, the problem of so-called "multiple testing" would occur in a very drastic manner, in which the probability of so-called "random signals" strongly increases. A Bonferroni correction with regard to the applied significance level would give a critical value for the protection against the alpha error of $p < 0.00029$ and would be extremely conservative, i.e. the null hypothesis is far too "favorable2" (Hombur & Krohmer, 2008).

Instead, each mean value of the 19 justifications is tested as regards to significance against the overall mean value of all 19 justifications. One sample t-test are used here, which check whether the mean value of the importance of each quitting reason differs significantly from the total mean value over all quitting reasons.

Results

The sample consists of almost ¾ of female respondents and ¼ of male respondents. The age range is between 16 and 74 years with a respondents' mean age of 43.5 years and a distribution of 13.0 years. In the age categories mentioned, most respondents (42.9%) are in age category 3 and a further 31.3% is in age category 2. Very young respondents represent only 9% of the respondents and respondents over 55 years 17% of the respondents. Contract terminations were made on average after 4.4 years of membership, with a very large distribution (standard deviation) of 3.8.

Table 1. Sample distribution characteristic values

		N	%	M	Median	SD	N
Gender	Female	164	72.9%				
	Male	61	27.1%				
	Total	225	100.0%				
Age				43.5	43.0	13.0	224
Membership duration (years)				4.4	3.0	3.8	225
Age categories	up to 25 years	20	8.9%				
	26-40 years	70	31.3%				
	41-55 years	96	42.9%				
	>55 years	38	17.0%				
	Total	224	100.0%				

Table 2 shows the mean value, median and standard deviation of the 19 studio evaluations.

Table 2. Mean, median and distribution of the studio evaluations

Variable	N = 224		
	M	Median	SD
Studio location	1.7	2.0	0.7
Parking facilities	2.0	2.0	0.9
First impression	1.5	1.0	0.6
Opening hours	1.4	1.0	0.6
Studio atmosphere	1.7	2.0	0.7
Trial training	1.5	1.0	0.6
Membership costs	2.5	2.0	0.8
Strength training offer	1.9	2.0	0.5
Endurance training offer	1.9	2.0	0.5
Spaciousness	2.3	2.0	0.7
Music	2.3	2.0	0.6
Light	1.8	2.0	0.6
Ventilation	2.2	2.0	0.6
Locker rooms	2.1	2.0	0.6
Sanitary facilities	2.0	2.0	0.5
Gastronomy	2.0	2.0	0.4
Trainer's friendliness	1.3	1.0	0.5
Trainer's helpfulness	1.3	1.0	0.5
Trainer's competence	1.3	1.0	0.5

Among all 19 studio evaluations occurs in the sample a mean evaluation of 1,821 (SD: 0.318).

Table 3 shows the different values that result when the significance of each individual reason in the sample is compared to the mean of the significance of all reasons. This corresponds to the distance between the blue bars and the red line in Figure 1.

Table 3. Mean value of each evaluation in relation to the overall mean value of all evaluations

Evaluation aspects	M	Mean value of all Evaluations	Difference value
Studio location	1.7	1.8	-0.1
Parking facilities	2	1.8	0.2
First impression	1.5	1.8	-0.3
Opening hours	1.4	1.8	-0.4
Studio atmosphere	1.7	1.8	-0.1
Trial training	1.5	1.8	-0.3
Membership costs	2.5	1.8	0.7
Strength training offer	1.9	1.8	0.1
Endurance training	1.9	1.8	0.1
Spaciousness	2.3	1.8	0.5
Music	2.3	1.8	0.5
Light	1.8	1.8	0.0
Ventilation	2.2	1.8	0.4
Locker rooms	2.1	1.8	0.3
Sanitary facilities	2	1.8	0.2
Gastronomy	2	1.8	0.2
Trainer's friendliness	1.3	1.8	-0.5
Trainer's helpfulness	1.3	1.8	-0.5
Trainer's competence	1.3	1.8	-0.5

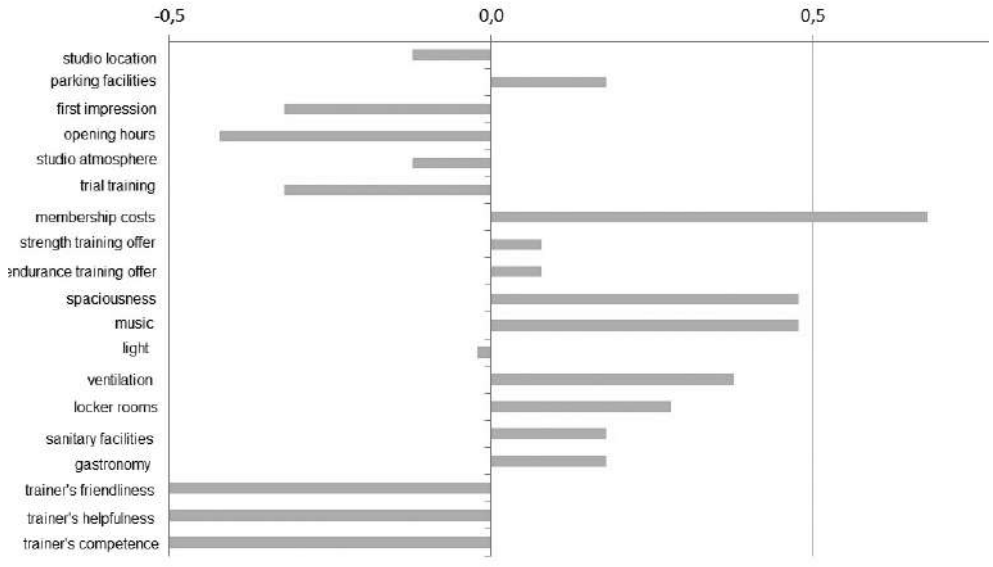

Figure 1. Difference values of the individual studio evaluations in relation to the total mean value

As expected, the variance analysis with measurement repeat factor gives a highly significant effect with $p < .001$ (F: 67,769; df: 18/203) for N = 221 cases with valid values in all 19 items. So initially it proved particularly significant, that not all evaluations are the same and that the evaluations' differences are not a mere random variation of this specific sample selection. This result was to be expected, however, since a complete similarity of all the evaluations would not be very plausible.

The extremely high variance clarification (partial Eta squared) of 857 appears to be more important in this result. This means that 85.7% of the total variance in all evaluation aspects can be derived from the fact that different questionnaires are available. Only 15% of the total variance is attributable to differences between the respondents within the same evaluation aspect. Thus, the respondents of the sample answered very homogeneously as regards to the individual evaluation aspects and are quite differentiated between the different evaluation aspects.

Table 4 shows the results of the significance test using so-called one-sample t tests. It is tested, in each case, the zero hypothesis that the mean evaluation for the respective studio feature (apart from random variations) does not deviate from the total mean value of all studio evaluations, which is 1.821.

Table 4. Significance of the deviations of the mean values of the studio evaluation from the total mean value of all evaluations

Variable	Test value = 1.821			
	t	df	Sig.	Mean value difference
Studio location	-2.412	223	0.017	-0.111
Parking facilities	3.593	223	0.000	0.206
First impression	-8.870	222	0.000	-0.368
Opening hours	-11.458	223	0.000	-0.433
Studio atmosphere	-3.352	223	0.001	-0.160
Trial training	-8.455	223	0.000	-0.321
Membership costs	12.170	223	0.000	0.639
Strength training offer	2.308	223	0.022	0.076
Endurance training offer	1.555	222	0.121	0.053
Spaciousness	10.401	223	0.000	0.465
Music	10.798	223	0.000	0.433
Light	-0.476	222	0.635	-0.018
Ventilation	9.590	222	0.000	0.394
Locker rooms	7.210	223	0.000	0.277
Sanitary facilities	5.849	223	0.000	0.206
Gastronomy	6.643	223	0.000	0.188
Trainer's friendliness	-16.052	223	0.000	-0.509
Trainer's helpfulness	-15.170	223	0.000	-0.495
Trainer's competence	-16.805	223	0.000	-0.517

It seems that the mean values of 17 out of the 19 evaluations differ significantly from the overall mean value of all studio evaluations. In 15 of the 19 tests, the results are significant at the 0.1% level, in two cases (studio location and strength training offer) significant at the 5% level. The mean evaluation of the lighting conditions in the studio is clearly not different from the overall mean value.

The results confirm that the individual aspects of the studio evaluation were actually evaluated independently by the interviewees and are not the expression of a generalized evaluation of the studio.

Discussion

In general, the mean values of the evaluations vary between 1.3 and 2.5, i.e. all are consistently in the positive evaluation range of the scale. Most items are a little below or slightly above the value of 2, which is "good".

Clearly, the best scores are found in the last three items, in which the studio trainers are evaluated. Also, the items opening hours, trial training and first impression are in the mean value closer to the evaluation level "very good" than at the evaluation

level “good”. The - relatively speaking - worst ratings appear at the features of membership costs, spaciousness, music and ventilation (Brehm & Eberhardt, 1995, Rampf, 1999).

A concentration of negative aspects in terms of training, will over time lead to an abandonment of the activity. Overall these results confirm the assumption that drop-outs are more critical towards general conditions and thereby support the results of other studies released on this topic.

It is important that the customer feels comfortable in the training area and in all other parts of the fitness-club. Comfortable feelings are for example guaranteed by not crowding the training area with training equipment. Sufficient space for movement during training, facilitates a positive training experience. Background music also creates a positive atmosphere. Sufficient ventilation is of special significance in that regard (Rampf, 1999).

In the research made by Rampf (1999) it becomes also evident that 19 % of the respondent group stated “too high cost for membership” as the main single reason for quitting the sports program. However, the real amount of cost is not the actual problem but rather the negative cost/benefit balance.

There is also evidence in other studies that financial aspects of dropout play an important role. In the survey by Breuer et al. (2013) even 45.1% of the 149 respondents cite as a reason "membership costs", which is why they discontinue fitness training.

Financial aspects are also mentioned in a study by the IHRSA (2012) as main arguments for the termination of membership in a fitness club. 52.2% of the 1,000 respondents surveyed said they were no longer able to afford their membership or rated them as expensive. Therefore, in future work, the collection of the income should be considered in order to assess its impact on the dropout.

The significance test shows, on one side, that the studio conditions were indeed evaluated very differently, and that a kind of generalized "mind set" is hardly reflected in the evaluation. How an evaluation is made largely depends on the specific evaluation aspect and only on a much lesser scale on personality differences.

With one exception, each evaluation is different as regards to significance, thus differentiated, from the basic trend over all studio evaluations.

Conclusions

On the whole, the various aspects of the studio offer and its surroundings were largely rated as "good". The respondents appreciated particularly the coaches (friendliness, helpfulness, competence), followed by opening hours, trial training and the first impression. The membership costs and individual aspects such as space, music and ventilation are assessed more critically, if not really badly.

The data show that the various evaluation aspects were clearly assessed differently by the respondents, and that there was apparently little generalized information on the studio evaluation.

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