



Strategy Proposals for the Preference of SMEs as Workplace

Seckin Polat, Umran Eris Ucurum, and Umut Asan^(✉)

Industrial Engineering Department, Management Faculty, Istanbul Technical University,
Istanbul, Turkey

{polatsec, asanu}@itu.edu.tr, umraneris@gmail.com

Abstract. Small and medium-sized enterprises (SMEs) are important drivers of national economies, especially because of their employment-generating characteristics. In spite of this fact, SMEs are facing significant problems related to attracting and retaining a quality workforce, which is critical for organizational performance. This study aims to develop strategies that will attract high-quality employees in choosing SMEs as their workplace. For this purpose, the workplace preferences of employees are examined using conjoint analysis. A sample group was asked how attractive they find the alternative combinations of incentives (benefits) that will be provided by the government. According to the answers given, the impact of each alternative strategy proposed as state incentives were estimated. The results highlight the benefits the government should provide to employees to motivate them work in SMEs.

Keywords: Small · Medium-sized firms · Human resources · Job preferences · Conjoint analysis

1 Introduction

This study aims to develop strategies that will attract high-quality employees in choosing SMEs as their workplace. SMEs have a very important place in both the world economy and Turkish economy. In OECD countries, SMEs constitute 95% of total enterprises (World Trade Organization 2016). The total share among businesses of the SMEs in Turkey is 99% (Science, Industry and Technology Ministry 2015). Although SMEs contribute significantly to the economy, they are facing considerable problems. The first list of these problems is those related to human resources, including attracting and retaining a quality workforce, which plays an important role in improving organizational performance (Tsang et al. 2015; Haşit 2016; Krishnan and Scullion 2017). In this study, to overcome the problems of SMEs about attracting quality staff, alternative strategies and their possible impacts were examined. To do this, the workplace preferences of employees were first determined. Then, it was investigated what benefits the government may provide to employees if they work in SMEs. A conjoint model was developed, and a sample group was asked how attractive they find different firm environments, i.e. alternative combinations of factors covering benefits provided by the government. According to the answers given, the impact of each alternative strategy proposed as state incentives were estimated.

2 Methodology

Conjoint analysis (Bridges et al. 2011; Green and Krieger 1991) was used in this study to determine the effect of alternative strategies. This method covers the following main steps: (i) determining the relevant factors and their levels, (ii) specifying the data collection approach and designing survey cards (creating profiles), (iii) conducting the survey, and finally (iv) estimating the conjoint model using regression analysis with dummy variables. These steps are explained below.

2.1 Determination of Factors and Levels

Factors to be used in the research were divided into two groups as encouraging factors and incentive factors. The encouraging factors correspond to the characteristics of the firms, while the incentive factors correspond to the applicable strategies by the government. A preliminary survey with a small sample size was conducted to determine the encouraging factors to be used in the study. In this survey, an open-ended questionnaire, including the question “What are the common characteristics of SMEs?” was administered. The result of this survey indicates that low wages, lack of training opportunities and lack of career opportunities are common characteristics of SMEs. SMEs were represented with these characteristics in the conjoint analysis. They constitute the basis of the encouraging type factors (see below) used in the conjoint analysis. Note that in conjoint analysis, a manageable survey should involve seven or less factors in the model. This means less than 16 cards to be directed to respondents if a fractional factorial design is applied.

2.2 Determination of Encouraging Factors

Encouraging factors were determined using results of the preliminary survey, mentioned above, and a comprehensive literature review (i.e. Baum and Kast 2013; Boswell et al 2003; Boswell et al. 2012; Froelich 2005; Jans et al 2001; Judge and Bretz 1991; Arachchige and Robertson 2011; Kim and Yang 2013). These factors, which details are given below, are assumed to reflect the typical differences between large-scale firms and SMEs:

Wages and Fringe Benefits: Direct economic benefits such as salary, premium, and extra-economic benefits such as clothing and family allowances are defined as a factor of wages and fringe benefits. This factor was divided into three levels such as on the industry average, below the industry average, and above the industry average. The level “below the industry average” is assumed to reflect SMEs since SMEs generally pay lower wages and do not provide fringe benefits.

Company Reputation: Company reputation is a factor that shows how well known a company is. In this study, for this factor, two levels were defined as known firm and unknown firm. Since large size firms use employer branding strategies that make firms known by people, and candidates prefer well-known firms to work by considering positive impact of employment in large scale firms on their careers, SMEs have difficulties in influencing candidates (Tumaşjan et al. 2011). For that reason, it was assumed in this study that SMEs correspond to the category of “unknown firms.”

Training and Career Opportunities: The new generation is sensitive to training opportunities in the workplace. Training that will contribute to career development in firms is an important factor affecting choice of candidates. This factor is divided into two levels as good training and career opportunities and no training and career opportunities. It was assumed that level of “no training and career opportunities” reflects characteristic of SMEs.

2.3 Determination of Incentive Factors

Since this study investigates the effect of incentives that the government could provide to employees if they work in SMEs, the incentives that can be implemented without any burden on both the employee and SMEs were searched. For example, one incentive that can be implemented by the government would be to decrease the income tax rate. This incentive directly affects the wage of an employee. The age of retirement specified by the Social Security Institution (SSI) and the period of work required to earn the right to retirement as well as the compensation of unemployment, the period of granting, and private health insurance can be considered as incentives that can be applied by the government. In addition, employees are considered to be one of the incentives that the government could apply for an extra discount on the income tax rate in the case of graduate or doctoral degrees. Consequently, seven different incentives were determined that are assumed to be applicable by the government.

To limit the number of combinations (profiles) to be used in the conjoint analysis, the incentive factors were reexamined. For this purpose, a questionnaire was designed where incentive factors to be used in conjoint analysis were determined. The respondents were asked to answer the question: “How does the following incentive motivate you to work at a workplace?” A total of 34 respondents participated in the survey. The survey results show that decreasing the income tax rate and providing private health insurance have more influence on motivation than other incentives. Apart from these, the age of retirement and the period of compensation of unemployment are determined as the factors to be used in the research. These four factors chosen as the incentive factors are explained below:

Income Tax Rate: Income tax refers to the amount of money that people have to pay to the state due to the income they earn. This amount is up to a percentage of the payments made to them in the workplace for employees. A reduction in income taxation causes the employee to earn more income. According to the income brackets for 2017, an individual who is newly graduated or has 0–5 years experience and whose position is not a manager is generally known to be in the income bracket above 30,000 TL (Gelir İdaresi Başkanlığı 2017). For that reason, it was accepted that, on average 27% of the income tax in the survey corresponds to the current status. In addition to the current status, two more levels are defined as 5% and 10% less than current status.

Retirement Age: Retirement age indicates the age from which a person will get pension from state without working. Since the retirement age determined by the social security institution varies according to the sex and the age at which the individuals began to work,

a specific age is not mentioned in this survey. Three levels were identified for this factor: the current retirement age, 3 years less than the current retirement age, and 5 years less than the current retirement age.

Unemployment Compensation Period: The unemployment compensation period shows how long a person will receive a guaranteed salary from the government agency when he or she is unemployed. Unemployment compensation is given to individuals who work as insured and pay unemployment insurance premiums. The periods are 6 months for the unemployed who worked for 600 days, 8 months for the unemployed who worked as insured for 900 days, and 10 months for the unemployed who worked as insured for 1080 days (iskur.gov.tr). The current status that is valid for the respondent is defined as the first level of the factor. Other levels are 3 months more than the current status and 6 months more than the current status.

Private Health Insurance: Most of the big companies provide private health insurance to their employees. SMEs have difficulty in providing such an opportunity because SMEs do not have sufficient financial resources. This creates a disadvantage for SMEs in the recruitment competition. It is thought that SMEs may come over the difficulty with such an incentive that the government will provide specifically for employees in SMEs. For this factor, two levels have been identified.

All seven factors and their levels that are used in the conjoint analysis are summarized in Table 1.

Table 1. Factors and their levels

Factors	Level 1	Level 2	Level 3
Wages and fringe benefits	Below industry average	Industry average	Above industry average
Firm reputation	Unknown firm	Known firm	–
Training and career opportunities	No	Good	–
Income tax rate	Current status (CS)(App. 27%)	5% less than CS (App. 22%)	10% less than CS (App. 17%)
Retirement age	CS	3 years less than CS	5 years less than CS
Unemployment compensation period	CS (App. 6 months)	3 months more than CS (App. 9 months)	6 months more than CS (App. 12 months)
Private health insurance	Not offered	Offered	–

The main survey question used in the conjoint analysis was designed as “How willing are you to work in a workplace with the following characteristics?” A conjoint card example used in this study is given in Fig. 1.

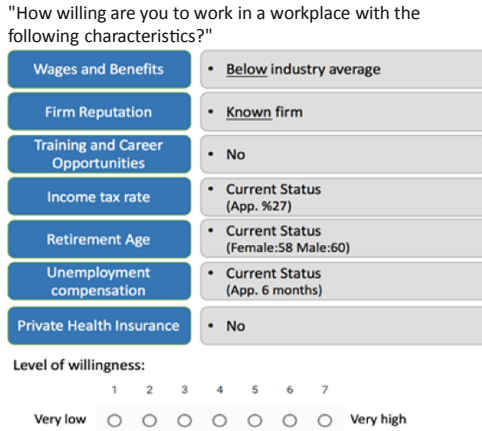


Fig. 1. Conjoint card example

3 Analysis

3.1 Demographic Characteristics

Out of the 163 people who participated in the survey, 104 are women, and 59 are men. It is observed that the participation rate of young people in the survey is high. The age ranges 23–28 and 29–35 constitute 86% of the respondents. When the educational status is examined, it is seen that university graduates, graduate students, and master’s degree graduates constitute the majority (90.2%) of the participants. When the occupational groups of the respondents are examined, it is seen that there are about 65% engineers. Age groups, education levels and experiences of the participants are close to each other. In summary, the respondents are mainly composed of newly graduated or less experienced, non-executive or first-tier executive university graduates.

3.2 Conjoint Analysis Results

In Table 2, utility values and standard error values are given for each level of factors. It is seen that utility values increase as the levels of factors is generally improved. Here, it is seen that there are two factors of which utility values do not increase as their levels improve. These are the retirement age and the unemployment compensation period. For retirement age, the utility value of the level of current status is the lowest, the utility value of 3 years below the current status is the highest. Here, the third level, which is 5 years less than the current status, is expected to be the highest, but it results as the second highest. To understand this unexpected result, the conditions to get pension should be analyzed. There are two conditions; one condition is that a person must be at retirement age or more, which is set by the government. The second condition is that a person must work as insured and pay all premiums for a specified period that is also set by the government. Considering these two conditions, people may have thought that since the number of working days is longer than the retirement age, decreasing retirement age is not so meaningful.

For the unemployment compensation period, the current status that is, in average 6 months, has the lowest utility value. The level of 3 months surplus is the highest utility value. In contrast to expectations, the option of giving 6 months more than the current status planned as the best level results in the middle. A reason behind this unexpected result would be that the individuals may have thought of not wanting to remain unemployed for such a long time or not to be unemployed.

Table 2. Factors, levels, and utility values

Factors	Levels	Utility values	Standard error
Wages and fringe benefits	Below industry average	-1.229	0.107
	On industry average	-0.220	0.125
	Above industry average	1.251	0.125
Firm reputation	Known firm	0.297	0.080
	Unknown firm	-0.297	0.080
Training and career opportunities	Good	0.484	0.080
	No	-0.484	0.080
Income tax rate	Current status (CS) (App. 27%)	-0.198	0.107
	5% less than CS (App. 22%)	0.010	0.125
	10% less than CS (App. 17%)	0.188	0.125
Retirement age	CS	-0.178	0.107
	3 years less than CS	0.180	0.125
	5 years less than CS	-0.002	0.125
Unemployment compensation period	CS (App. 6 months)	-0.073	0.107
	3 months more than CS (App. 9 months)	0.076	0.125
	6 months more than CS (App. 12 months)	-0.003	0.125
Private health insurance	Not Offered	0.246	0.080
	Offered	-0.246	0.080
Constant		0.413	0.096

Using the utility values in Table 2, for each of small, medium, and large-sized companies the willingness/attractiveness values for the current situation and incentive situations were calculated (see Table 3). Note that willingness in this paper is used in the same sense as attractiveness. To calculate the attractiveness values of each firm type for the current situation, estimated utility values of the levels of the encouraging factors corresponding to the characteristics of firm type and estimated utility values of the levels of the incentive factors are used. For small firms, the level “below the industry average” for

the factor wage and fringe benefits, the level “unknown firm” for company reputation, and the level “no training and career opportunities” are used. For medium-sized firms, the levels considered are “on industry average,” “unknown firm,” and “good training and career opportunities.” It is recognized that large-scale firms provide wages and benefits “above industry averages,” are “well-known firms” and “provide good training career opportunities.” Two incentive policies were defined. In the first policy, for all of the incentive factors, levels with the highest utility value will be in action. In the second incentive policy, the levels of the incentive factors except the one with the highest utility value are set to the current situation. The factor and its level that received the highest attractiveness among the incentive factors is providing private health insurance to employees in SMEs (by the government). For the incentive factors for all types of firms, the same levels of the factors were applied.

For the first incentive policy, 10% less than the current status for the income tax, three years less than the current status for the retirement age, 6 months more for the unemployment benefit period, and providing private health insurance were selected as levels. The attractiveness that comes from the encouraging factors for firm types equals the sum of the utility values of the levels that represent the firm. The attractiveness of encouraging factors is 2.032, -0.033 , and -2.01 respectively for large, medium and small scale firms. These findings may indicate that medium and small-sized firms have no attractiveness to employees. Note that the effects of the incentive factors on the attractiveness are independent of the firm types. The effect of these factors varies depending on the current situation and the incentive situations. The total effect of the incentive factors in the current situation is -0.695 whereas the total effect of the incentive factors in the first incentive policy is 0.690. The value of the firm’s current total attractiveness is 5.35, 3.285 and 1.308 for the large, medium and small, respectively. According to these values, the ratio of the attractiveness of medium-sized firms and small-scale firms to the attractiveness of large-scale firms are 0.61 and 0.24, respectively. However, it would be more appropriate to compare the attractiveness of SMEs when incentive policy is implemented with the attractiveness of current situation of large-scale companies to see the effect of the subsidized situation on SMEs. When the first incentive policy is applied, the resulting attractiveness of medium and small-sized ones is 4.71 and 2.71 respectively. In this case, the ratios are 0.88 and 0.51 for medium and small, respectively, which mean that when all of the incentive strategies are applied at the most advanced level, the attractiveness of medium-sized firms reaches 88% of the attractiveness of large-scale firms and the attractiveness of small-scale enterprises reaches only 51%. Attractiveness values will change if the second incentive policy is applied. In this case, the sum of the attractiveness of the incentives is -0.203 . If such a strategy is implemented, the attractiveness of medium-sized firms will be 3.81. For small scale firms this value will be 1.80. The ratios are 0.71 and 0.34 for the medium-scale and small-scale firms respectively. The results are summarized in Table 4.

Table 3. Attractiveness values for firm types

Factors	Levels	Utility values	Large firms		Medium scale firms			Small scale firms		
			C	I*	C	I*	I**	C	I*	I**
Wages and benefits	Below industry average	-1,229						X	X	X
	On industry average	-0,220			X	X	X			
	Above industry average	1,251	X	X						
Firm reputation	Known firm	0,297	X	X						
	Unknown firm	-0,297			X	X	X	X	X	X
Training and career opportunities	Good	0,484	X	X	X	X	X			
	No	-0,484						X	X	X
Sum of encouraging factors			2,032	2,032	-0,033	-0,033	-0,033	-2,01	-2,01	-2,01
Income tax rate	Current status (CS) (App.27%)	-0,198	X		X		X	X		X
	5% less than CS (App. 22%)	0,010								
	10% less than CS (App. 17%)	0,188		X		X			X	
Retirement age	CS	-0,178	X		X		X	X		X
	3 years less than CS	0,180		X		X			X	
	5 years less than CS	-0,002								
Unemployment compensation	CS (App. 6 months)	-0,073	X		X		X	X		X
	3 months more than CS (App. 9 m)	0,076		X		X			X	
	6 months more than CS (App. 12 m)	-0,003								
Private health insurance	Exist	0,246		X		X	X		X	X
	No	-0,246	X		X			X		
Sum of incentive factors			-0,695	0,690	-0,695	0,690	-0,203	-0,695	0,690	-0,203
Constant		4,013	X	X	X	X	X	X	X	X
Total attractiveness			5,350	6,735	3,285	4,706	3,81	1,308	2,714	1,80

C: Current, I: Incentive; *First incentive policy, **Second incentive policy

Table 4. Summary of the attractiveness of firm types

Factors	Large size firms		Medium size firms		Small size firms		
	Current	Current	Incentive*	Incentive**	Current	Incentive*	Incentive**
Encouraging	2.032	-0.033	-.033	-.033	-2.01	-2.01	-2.01
Incentive	-0.695	-0.695	0.690	-0.203	-0.695	0.690	-0.203
Coefficient	4.013	4.013	4.013	4.013	4.013	4.013	4.013
Total attractiveness	5.35	3.285	4.706	3.81	1.308	2.714	1.80
Ratio		3.29/5.35 =0,61	4.71/5.35 =0,88	3.81/5.35 =0,71	1.31/5.35 =0,24	2.71/5.35 =0,51	1.80/5.35 =0.34

*First Incentive Policy, **Second Incentive Policy

4 Conclusion

In this study, strategies were developed to motivate high-quality employees in choosing SMEs as their workplace. The four benefits that the government can provide to its employees are considered as a strategy option that can influence the workplace preferences of employees. Effects of these strategies, defined as reducing the income tax rate, reducing the retirement age, increasing the duration of the unemployment compensation, and providing private health insurance to employees in SEMs, on the attractiveness of large scale firms and SMEs were determined by conjoint analysis. According to the results of the conjoint analysis, the ratio of attractiveness of small-scale firms to the attractiveness of large scale firms is 0.24, while that of medium-scale firms is 0.61. These values show that small and medium-sized companies have great disadvantages over large-sized companies. When all incentives for small and medium-sized firms are applied, this ratio is 0.51 for small and 0.88 for medium-sized firms. Only when the incentive factor with the highest attractiveness is applied, these ratios become 0.34 and 0.71. All of these findings indicate that SMEs have significant disadvantages resulting from their structural characteristics. However, it can be concluded that government incentives may help reduce the disadvantages of SMEs in this regard. There are also some limitations to this study. The majority of the respondents are engineers. Therefore, it is not possible to generalize the results to all professions. Moreover, the age range covers mostly young people, which is another restriction to generalize the results. Another limitation concerns the method of gathering respondent evaluations. The method used in conjoint analysis inevitably limits the number of factors and levels. This may cause to exclude factors having significant effect on the results. The results should be interpreted with these limitations in mind. Further analysis can be carried out to overcome these limitations. For example, a more effective evaluation approach can be employed in conjoint analysis to allow considering more factors. In addition, the effects of different environments can be investigated by conducting this study in other countries.

References

- Arachchige BJH, Robertson A (2011) Business student perceptions of a preferred employer: a study identifying determinants of employer branding. *IUP J Brand Manag* 8(3):25–46
- Baum M, Kabst R (2013) Conjoint implications on job preferences: the moderating role of involvement. *Int J Hum Resour Manag* 24(7):1393–1417
- Bilim S, Bakanlıđı T (2015). 2015–2018 KOBİ Stratejisi ve Eylem Planı. Blim, Sanayi ve Teknoloji Bakanlıđı, Ankara
- Boswell WR, Roehling MV, Lepine MA, Moynihan LM (2003) Individual job-choice decisions and the impact of job attributes and recruitment practices: a longitudinal field study. *Hum Resour Manag* 42(1):23–37
- Boswell WR, Zimmerman RD, Swider BW (2012) Employee job search: toward an understanding of search context and search objectives. *J Manag* 38(1):129–163
- Bridges JFP, Hauber AB, Marshall D, Lloyd A, Prosser LA, Mauskopf J (2011) Conjoint analysis applications in health a checklist: a report of the ISPOR good research practices for conjoint analysis task force. *Value Health* 14(4):403–413
- Froelich KA (2005) Attracting today’s educated workforce: opportunities and challe. *J Small Bus Strategy* 15(2):1
- Gelir İdaresi Başkanlıđı (2017) Gelir Vergisi Tarifesi. <http://www.gib.gov.tr/node/117450>. Accessed 18 Mar 2017
- Green PE, Krieger AM (1991) Segmenting markets with conjoint analysis. *J Mark* 55(4):20
- Hařıt G (2016) KOBİ’ler İnsan Kaynakları Yönetiminin Neresinde? Eskiřehir KOBİ ’lerinde Bir Uygulama. *İnsan ve Toplum Arařtırmaları Dergisi* 5(7):1777–1791
- Jans N, Frazer-Jans J, Louviere J (2001) Employee choice modelling: predicting employee behaviour under varied employment conditions. *Asia Pac J Hum Resour* 39(3):59–81
- Judge TA Bretz Jr, RD (1991) The effects of work values on job choice decisions (CAHRS Working Paper #91-23). Cornell University, New York
- Kim J, Yang YC (2013) What can we do to attract and retain young people to our company as we find it difficult to attract employees at all levels. Cornell University, New York
- Krishnan TN, Scullion H (2017) Talent management and dynamic view of talent in small and medium enterprises. *Hum Resour Manag Rev* 27(3):431–441
- Science, Industry and Technology Ministry (2015) 2015–2018 SMEs strategies and action plan. Science, Industry and Technology Ministry, Ankara (in Turkish)
- Tsang S, Wang W, Ku H (2015) The Intention of job seekers to apply for jobs in small and medium-size coastal enterprises based on the theory of planned behavior. *J Coastal Res* 73:665–675
- Tumařjan A, Strobel M, Welpel IM (2011) Employer brand building for start-ups: which job attributes do employees value most? *Zeitschrift für Betriebswirtschaft* 81(6):111–136
- World Trade Organization (2016) World trade report 2016: levelling the trading field for SMEs. Wrold Trade Organization, Geneva