



Print ISSN: 1738-3110 / Online ISSN 2093-7717
JDS website: <http://kodisa.jams.or.kr/>
<http://dx.doi.org/10.15722/jds.18.12.202012.79>

Customer Satisfaction Management and Service Quality According to the DISC Behavior Type

Young-Jin SO¹, Ji-Yeon LEE², Young-Jin CHOI³, Woo-Sik LEE⁴,
An-Jin CHO⁵, Myoun-Kil YOUN⁶, Lee-Seung KWON⁷, Eun-Mee CHOI⁸

Received: October 16, 2020. Revised: November 23, 2020. Accepted: December 05, 2020.

Abstract

Purpose: This study aims to explore the service improvement and marketing strategy to measure the effect of the DISC (dominance, influence, steadiness, conscientiousness) behavior type of hair salon workers on service quality and marketing. **Research design, data and methodology:** 236 responses were analyzed by distributing questionnaires to hair salon workers through SNS. Factor analysis and reliability analysis were applied and the influence of job factors on work satisfaction and turnover intention, and the statistical significance of the DISC behavioral type adjustment effect verified. **Results:** First, among the general characteristics of the survey subjects, the most common respondents were women and interns in their twenties, with less than four years of experience and less than three years of work experience on site. Second, the working environment, employee relations and compensation policies caused by work-related factors have shown a major influence on work satisfaction. Third, the working environment and human relationships among the job factors have an impact on turnover intention. **Conclusions:** The working environment, human relations, and compensation system derived as job factors had a crucial effect in service quality and marketing on job satisfaction, and among job factors, working environment and human relations had a significant influence on turnover intention.

Keywords : Customer Satisfaction Management, Job Satisfaction, Turnover Intention, DISC Behavioral Types

JEL Classification Code : E44, F31, F37, G15

1. Introduction

Customer Satisfaction (CS hereafter) is considering as

a crucial factor of which can affect the firm sales (Thi & Nguyen, 2020). Currently, the beauty service industry has subdivided and specialized into hair, makeup, nail care, and skin care (Yoo & Park, 2020). Among them, the hair beauty industry occupies the largest area, and the government is actively supporting the advancement of the beauty industry as an institutional device for fostering it as an export and tourism industry (Jang & Jung, 2014). Beauty management is an outward expression method to give confidence in interpersonal relations and to deliver good impression (Jung & Moon, 2018). Today's hair salons do not only provide professional hairdressing techniques and facilities, but also satisfy psychological services in all processes of communication with customers and reaching results. This is because hair beauty services are not just value payments and product purchases (Yoo, 2015). Providing customized services that increase customer's internal and external satisfaction not only affects customer revisiting, but also introduces them to relatives and creates new customers in a favorable atmosphere. It can be looked that the management of human resources for the employees who

- 1 First Author. Professor, Department of Beauty Cosmetics Science College of Bio Convergence, Eulji University, Korea. Email: yjso@eulji.ac.kr
- 2 Second Author. Researcher, Department of Beauty Cosmetics Science College of Bio Convergence, Eulji University, Korea. Email: jean7908@naver.com
- 3 Third Author. Professor, Department of Healthcare Management, Eulji University, Korea. Email: yuzin@eulji.ac.kr
- 4 Fourth Author. Professor, Department of Chemical & Biological Engineering, Gachon University, Korea. Email: leews@gachon.ac.kr
- 5 Fifth Author. Professor, Department of Graduate School of Business, Kyung Hee University, Korea. E-mail: daisy7ka@naver.com
- 6 Sixth Author. Professor, College of Health Industry, Eulji University, Korea. Email: retail@eulji.ac.kr
- 7 Seventh Author. Professor, Department of Health Care Management, Catholic Kwandong University, Korea. Email: leokwon1@cku.ac.kr
- 8 Corresponding Author. Professor, Department of Health Care Management, Catholic Kwandong University, Korea. Email: smart609@cku.ac.kr

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

implement these services is concerned to the management performance of the hair salon. In most organizations, human behavioral types appear differently according to individual members' thinking, emotions, and behavioral characteristics, and these behavioral types classified into similar types. Human personality traits and behavioral patterns have studied since ancient times. Hippocrates defined four temperaments, and Carl Jung focused on the characteristics of individual perception and judgment, introverted/extroverted, emotion/intuition, thinking/emotional, perception/Classified in the form of judgment (Chun et al., 2016).

Personality refers to an individual's intrinsic quality or character and represents a specific form of behavior with respect to the environment (Lee & Kim, 2007). As these behaviors repeated one by one, they have a tendency and comes out naturally from the living environment, which called a Behavior Pattern or Behavior Style (Jo & Yang, 2018). Humans act in the form of DISC according to how they perceive the environment and how they perceive their individual strength in the environment (Bang, 2017). Human beings act as a DISC according to how they perceive the environment and how they perceive their own strength in that environment. Recognition of DISC behavior patterns can use as a strategic tool for maximizing work performance by discovering individual behavior types and strengths in the workplace, providing information on priorities and preferences of work. You can also learn how to understand co-workers who have different priorities and preferences, and how to get along with them, so you can build effective relationships with co-workers and improve the quality of work.

Beauty service contains mental stability effect for successful decrepitude and confidence improvement instead of changing external management, pursuing beauty trend simply (Jung & Moon, 2018). The hair salon is a labor-intensive industry with high dependence on human resources, and human-power is the most important management target. In order to be competitive in the same industry, it is necessary to secure excellent human-power and increase qualitative and quantitative productivity through efficient management of members (Park & Rhee, 2015). In addition, it is worth paying attention to the research results that the personality characteristics of organizational members can have a significant effect on service orientation, job satisfaction, and job turnover in order to maintain a higher customer service level and stable human power (Park et al., 2019). The reason job satisfaction is important is that dissatisfaction with the job can lead to voluntary turnover, and the will and willingness to perform the job as much as the employee's job competency and competency are necessary to create a job outcome (Kwak, 2012). In addition, frequent job

changeovers can lead to increased wages and customer service dissatisfaction due to competitive recruitment for hair salons

It can negatively affect both labor and management as it can weaken the willingness to invest in long-term investment in Korea (Youn & Jeon, 2019).

Until now, research on human resource management through analysis of DISC behavior patterns in various fields is steadily attempted. The effect of emotional labor of hair beauty workers on job stress and stress coping methods, but on job satisfaction and job turnover according to the DISC behavior type based on the meaning of human management in the hair salon field. Research is still insufficient. Therefore, this researcher examines the effect of the DISC behavior patterns of hair salon workers on job satisfaction and turnover intention, and provides basic data for efficient improvement in the management of human resources in the hair beauty industry. We intend to contribute to the development of the industrial field. Thus, service managers might find these results useful in preparing their work force for the increasing use of frontline technology in service settings (Christ-Brendemühl & Schaarschmidt, 2020).

2. Literature Review

2.1. The Concept of Hair Industry and Management

Since human history started, the beauty desire had become the basic instinct and raw thing of humanity and it had built in various aspects through the age (Jung & Moon, 2018). Looking at the status of beauty service startups, representative beauty salons can be classified into private shops, medium-sized franchises, and local brand shops (Lee & Park, 2015). The hair salon is a commercial space where hair designers use hair as a material to express their artistic sensations along with professional hairdressing techniques to bring out internal and external satisfaction of customers (Park & Rhee, 2015). In this area, hair care products are main emission source of cyclic siloxanes in indoor environments at the hair salons (Tran et al., 2018). Hair salons, which referred to as hair salons, are spaces where beauty services provided, and are a service business that assists in daily activities that are inevitable while living in a civilized society (Lee & Park, 2015). The beauty service at the hair salon is to provide hairstyle related services such as shampoo, cut, perm, color, scalp and hair care to customers who want to increase their emotional satisfaction and self-esteem by satisfying their aesthetic needs. In terms of dealing with part of the body, face-to-face is essential, and because the time for contact and interaction with customers is longer than that of other service industries, quality

control of the human service provided is important. In addition, since the non-technical services of hair salon human resources affect the customer's feelings toward the company, the attitude, appearance, and communication ability of the service provider also play a large part in the competitiveness of the company (Moon et al., 2019).

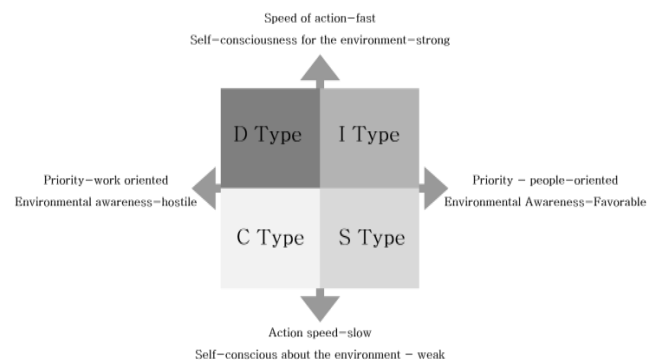
2.2. The Behavior Type of DISC

Behavior can define as the internally coordinated responses (actions or inactions) of whole living organisms (individuals or groups) to internal and/or external stimuli, excluding responses more easily understood as developmental changes (Milne et al., 2019). In consumer behaviors, attitude is a positive or undesirable tendency of an individual toward an object (Yang & Ahn, 2020). The DISC behavioral theory suggested by John Geier's research team (2011) in collaboration with Carlson Learning Company in 1928 based on the theory of William Marston, a professor of psychology at Columbia University in the U.S., and is a tool that was developed by John Geier's team (2011) in collaboration with the Carlson Learning Company. There are four different criteria for disconnection of DISC behavioral types. First, the speed of action. If you look at a person's behavior, there are types of behavior that are quick and thoughtful. Type D and type I considered quick to act, and type S and C to consider. Second, the priority of action. It means work-oriented or people-centered, and people-centered types have a lot of interest and expression in relationships with others. Work-oriented types tend to value goals and plans and practice them. Based on these criteria, Type I and Type S are people-centered, Type D and Type Care work-centered. Third, it is the perception of the environment. Types D and C are considered hostile to the environment, types I and S are considered favorable. Fourth, self-awareness of the environment. Type D and type I tend to see the environment as self-contained, while type S and type C tend to perceive themselves weaker than the environment (Kim, 2011).

2.3. Job Satisfaction

Job Satisfaction regarded as a pleasant and positive emotional state that an individual has by evaluating the difference between actual experiences and expectations about their job (Locke, 1976). Job satisfaction is the result of different factors, among which working conditions play an important role (Díaz-Carrión et al., 2020). However, when customers observe low interaction among employees, they are more likely to see the employee as an individual (i.e., apart from the group)(Chae, 2020). It is personal satisfaction of their job that include cognition of job involved elements (Kim & Kim, 2020). In other words, it

refers to the satisfaction of an organization member's job or job environment, and the sense of achievement through the job, recognition and positive feedback on performance and positive perception of self-growth through the job related to job satisfaction. Customer satisfaction can lead to consumer purchase intentions and purchase intentions have a direct impact on purchase behavior (Lee & Lee, 2017; Yoo & Park, 2020).. Beauty shop services often rely on individuals for service quality management in the entire process of customer service, treatment, and counseling, and securing an organizational member with excellent job competency becomes the direct competitiveness of the company. Satisfaction level can be an important criterion for evaluating an organization's performance and smooth operation (Kim & Lee, 2018).



Source: Bang(2017)

Figure 1: The Behavior Type of DISC

2.4. Turnover Intention

Turnover means to give up being a member of one organization and secede from it (Lee & Lee, 2017). Having turnover intention does not mean that an employee will resign, but implies a thought of doing so (Wang et al., 2020). Turnover means ending your current job or trying to change your job, ending your employment with the employer. Mobley (1977) defined a job change as a voluntary movement that terminates membership in which an individual receives monetary compensation. It defined as including all service and physical abnormalities. Turnover Intention is to be the state of psychological reactions or thoughts of individuals who want to leave without being satisfied with the organization. When the needs of the organizations and individuals to which they belong are unbalanced, turnover occurs, and workers move to places where they expect better wages, promotions, and working conditions. Vandenberg and Nelson (1999) stated that the intention to turnover was to consider the possibility that individuals subjectively would completely depart from the organization at a certain point in the future.

3. Research Methodology

3.1. Research Hypothesis

This study established a hypothesis that job factors influence job satisfaction and turnover intention, and established a hypothesis to verify whether the DISC behavior type acts as a moderating effect on each hypothesis. 8 hypotheses were established: 3 hypotheses on the relationship between job factors to consider and job satisfaction, 3 hypotheses on the relationship between job factors and intention to turnover, and 1 hypothesis on the moderating effect of the DISC behavior on job satisfaction and intention to turnover.

H1: Job factors will affect job satisfaction.

H1-1: The working environment will affect job satisfaction.

H1-2: Human relationships will affect job satisfaction.

H1-3: The compensation system will affect job satisfaction.

H2: Job factors will affect turnover intention.

H2-1: The working environment will affect the intention to turnover.

H2-2: Human relationships will affect the intention to turnover.

H2-3: The compensation system will affect turnover intentions.

H3: In the process that job factors affect job satisfaction, the moderating effect of DISC behavior patterns will appear.

H4: In the process where job factors influence turnover intention, the moderating effect of DISC behavior patterns will appear.

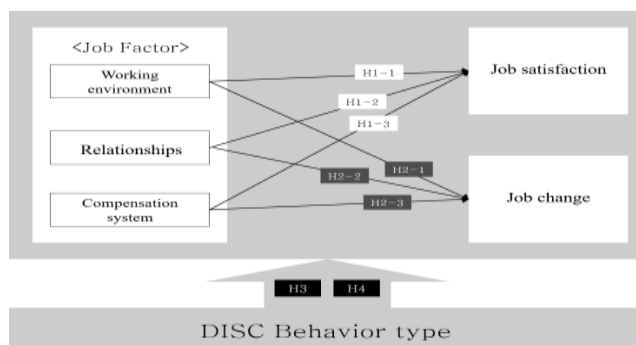


Figure 2: Research Model

3.2. Research Design

This study is an analysis on the effect of DISC behavior patterns of hair salon workers on job satisfaction and turnover intention. To this end, a self-written questionnaire distributed for hair salon workers through SNS. The survey period conducted for 15 days from April 27 to May 11,

2020, and 236 copies used as analysis data.

The questionnaire was composed of optional questions for 12 questions as a general characteristic of the study subject, and the job satisfaction questionnaire consisted of 8 questions on work environment, 8 questions on human relations, 5 questions on compensation system and 7 questions on overall job satisfaction, etc. It consisted of 28 questions.

There are 7 questions to find out the intention to turnover, and the DISC behavior type is a total of 32 questions based on the previous research questionnaire of Shim and Oh (2016). Configured. All questionnaires except general characteristics used the Likert scale. For job factors, job satisfaction, and turnover intention, the Likert 5-point scale (1 = not at all, 2 = not, 3 = normal, 4 = usually, 5) =very yes), and the Likert 4-point rating scale (1=not at all, 2=mostly not, 3=mostly yes, 4=very yes) regarding DISC behavioral patterns.

3.3. Measurement of Research Results

This study analyzed the collected data using the statistical analysis program IBM SPSS 23.0 package program. For the analysis of general characteristics, a frequency analysis performed, and factor analysis performed to verify the reliability of the questions constituting job elements, job satisfaction, and job turnover intention and the validity of the measurement tool. For factor analysis rotation was used, and when the Cronbach's α was 0.6 or higher, it was considered that the internal consistency between the questions was reliable. In addition, the five factors obtained related between constituent factors through Pearson's correlation analysis. Multiple regression analysis can be assessed the effect of job factors on job satisfaction and job turnover intention. In multiple regression analysis, since the R² value tends to enhance as the number of independent variables increases, we accepted the recommendation of previous studies that it recommended to judge the model fit with the adjusted R². After hierarchical cluster analysis to classify the DISC behavior type of the survey target, the final cluster was classified using K-means cluster analysis. Multiple regression analysis revealed for each of the four types to determine whether the DISC behavior type had a moderating effect in the job element affecting job satisfaction and turnover intention.

4. Research Results and Discussion

4.1. General Characteristics of Survey Subjects

In Table 1, by frequency analysis of the general

characteristics of the survey subjects, there were 192 women (81.4%) and 44 men (18.6%). The age range was 148 people (62.7%) in their 20s, unmarried 187 people (79.2%), the final education was 84 high school graduates (35.6%), and 106 people (44.9%) in Gyeonggi at work. The rank is 76 interns (32.2%), the beauty career is 89 (37.7%), the form of salary is incentive (capacity level) 74 (31.4%), service period is 1-3 years 84 (35.6%), the workplace location was the highest with 108 people (45.8%) in apartments or shopping malls, and the number of regular workers was 11 or more (118 people, 50%).

Table 1: General Characteristics of Survey Subjects (N=236)

Division	Type	Frequency	Percent (%)
Gender	Female	192	81.4
	Male	44	18.6
Age	Twenty	148	62.7
	Thirty	54	22.9
	Forty	27	11.4
	Over fifty	7	3.0
Marriage	Single	187	79.2
	Married	40	16.9
	Other	9	3.8
Education	Less than high school	1	0.4
	High school graduation	84	35.6
	Enrolled in or graduated from a junior college	83	35.2
	University attendance or graduation	55	23.3
	Graduate school or higher	13	5.5
Working area	Seoul	90	38.1
	Gyeonggi	106	44.9
	Gangwon	18	7.6
	Other	22	9.3
Rank	Intern (Assistant)	76	32.2
	Junior designer	18	7.6
	Designer	71	30.1
	Middle managers (Team Leader, Vice manager)	33	14.0
	Administrator(Manager, Salon manager)	38	16.1
Career	Less than 1 year	31	13.1
	1 year or more to less than 3 years	89	37.7
	3 years or more to less than 7 years	43	18.2

	7 years or more to less than 11 years	34	14.4
	11 years or more	39	16.5
Wage type	Fixed salary	104	44.1
	Incentive	74	31.4
	Fixed salary + Incentive	58	24.5
Working period	Less than 1 year	82	34.7
	1 year or more to less than 3 years	84	35.6
	3 years or more to less than 7 years	45	19.1
	7 years or more to less than 11 years	14	5.9
	11 years or more	11	4.7
Work location	Downtown	95	40.3
	Apartment or mall	108	45.8
	Residential area	23	9.7
	Department store or hypermarket	10	4.2
Full-time worker	2 to 3 people	28	11.9
	4 to 7 people	43	18.2
	8-10 people	47	19.9
	11 or more	118	50
Sum		236	100

4.2. Measurement of Validation and Reliability

4.2.1. Reliability

Reliability verification refers to finding out whether there is a possibility to obtain the same measurement value if measurements repeated for the same concept. In general, Cronbach's alpha coefficient is used as a reliability verification method, but if it is more than 0.6, it is determined that there is a reliability. Looking at the Cronbach Alpha by research variable as indicated in Table 2, among the three job factors, work environment was 0.870, human relations were 0.810, and the compensation system was 0.894. Job satisfaction was 0.887 and turnover intention was 0.858. The Cronbach alpha value is 0.8 or higher, so it is reliable.

Table 2: Reliability Verification

Division		Number of questions	Cronbach alpha
Job factor	Working environment	8	0.870
	Relationships	8	0.810
	Compensation system	5	0.894
Job satisfaction		7	0.887
Job change		7	0.858

4.2.2. Validity and Reliability of Job Factors

Table 3 is the result of factor analysis to evaluate the validity of the job factor question. Since the Bartlett test value is $\chi^2=1889.686$ ($p=.000$), there is enough correlation between the variables to form a factor, and the KMO value is 0.884 as a result of checking the sample fit of KMO. After excluding four items, such as relationship with boss, relationship with owner, respect of boss and colleagues,

reaching wage target', which showed low factor loading value, the factor loading amount was all 0.5 or more and the intrinsic value was 1.0 or more. It analyzed that 62.024% of the total variance explained and validity secured. The analyzed factor 1 was named 'working environment', factor 2 was named 'human relations', and factor 3 was named 'compensation system'.

Table 3: Factor Analysis by Job Factor

Division		Factor 1	Factor 2	Factor 3
Factor 1 Working environment	I think the management of fringe benefits is appropriate.	.780	.399	
	I think the workload is adequate.	.779		
	I think the holiday and vacation system is appropriate.	.741		
	The current salary is satisfactory when compared to the same position in another workplace.	.687		
	Satisfied with the working environment (facilities, traffic lines).	.533	.320	
	Satisfied with the working hours.	.716		
	Satisfied with the dining environment (menu, time, place).	.585		
	I think the number of people working is adequate.	.551		
Factor 2 Relationships	I am happy with my relationship with my colleagues.		.735	
	I am happy with the relationship with the customer.		.643	
	Work cooperation between employees is well established.		.772	
	When you need help, there is someone to help you.		.670	
	Communication is smooth		.737	
Factor 3 Compensation system	An evaluation system based on individual performance is systematically operated.		.317	.781
	Opportunities for promotion are provided fairly.			.821
	There are opportunities for systematic education and training for promotion.			.833
	Various performance compensation systems have established.			.825
Total variance explanation		62.024		

Note: KMO=0.884 Bartlett's test $\chi^2=1889.686$ ($p=.000$)

4.2.3. Analysis of Job Satisfaction and Turnover Intention Factor

The results of factor analysis to gather the validity of the job satisfaction and turnover intention questions showed in Table 4. In a result of Bartlett's unit matrix check, the correlation between variables was sufficient as $\chi^2=1376.030$ ($p=.000$), and the KMO value was 0.868, confirming that the validity was secured. The factor loadings were all 0.5 or more, except for the three factors such as 'I feel like I lose when I quit my job, job change intention, and job turnover intention due to conflict with customers', which showed a low factor loading value as a result of factor analysis. This divided by two factors, which were 1.0 or higher, accounting for 64.907% of the total variance. The derived factor 1 named 'job satisfaction' and the factor 2 named 'turnover intention'.

Table 4: Factor Analysis by Job Satisfaction Turnover Intention

Division		Factor 1	Factor 2
Factor 1 Job satisfaction	I am generally happy with my work.	.698	-.317
	I think the future of hair beauty is bright.	.709	
	I feel a sense of accomplishment in my work.	.843	
	I like my work more than others.	.794	
	I find work rewarding.	.838	.320
	I can proudly tell others about my job.	.768	

Factor 2 Job change	I have tried to get a job at another job at my current job.		.817
	I'm seriously thinking about quitting my current job.	-.327	.818
	I would do it if I get scouted at another job		.854
	I want to quit my job because of a relationship conflict.		.568
	I have thought about changing jobs because of my working conditions.		.808
Total variance explanation		64.907	

Note: KMO=0.868 Bartlett's test $\chi^2=1376.030(p=.000)$

4.2.4. Analysis of Correlation between Constituent Concepts

Pearson correlation analysis checked to explore the relationship between the two variables in order to understand the relative influence of the working environment, human relations, compensation system, job satisfaction, and turnover intention. In a result of assessing the correlation between constituent concepts using the mean value, the highest positive correlation was shown in human relations and job satisfaction with $r=0.619$ ($p=0.000$). Turnover intention and compensation system had the lowest negative correlation with $r=0.367$ ($p=0.000$). Since there is a correlation between each component, there is no problem in testing the hypothesis using these measures. The results of the correlation analysis showed in Table 5.

Table 5: Results of Correlation Analysis between Constituent Concepts

Division	Working environment	Relationships	Compensation system	Job satisfaction	Job change
Working environment	1				
Relationships	.487**	1			
Compensation system	.543**	.453**	1		
Job satisfaction	.548**	.619**	.506**	1	
Job change	-.532**	-.418**	-.367**	-.471**	1

Note: * $p < .05$, ** $p < .01$

4.3. Hypothesis Tests

4.3.1. The Effect of Work Factors on Job Satisfaction

Table 6 shows the results of multiple regression in SPSS on the effect of job factors on job satisfaction. With $R^2=.485$, it has 48.5% explanatory power for the effect of job factors on job satisfaction, but applying the adjusted R^2 value can be seen as $R^2=.478$, and the final explanatory power is 47.8%. In terms of the influence of independent variables, working environment ($t=4.317$, $p<.001$), human relations ($t=7.440$, $p<.001$), and compensation system ($t=3.178$, $p<.01$) variables all have significant significance

in job satisfaction. It was looked to have a positive (+) effect. Looking at the influence of each variable on job satisfaction, it was found that human relations ($\beta=.415$), working environment ($\beta=.245$), and compensation system ($\beta=.185$) were in order. The relationship between job factors to consider and job satisfaction was similar in previous studies by Kim and Jang (2016). In Choi and Song (2018)'s research, the higher the satisfaction with the job content factor, overall organization factor, and work environment factor, the higher the job satisfaction was. In the study of Mushtaq et al. (2014), it was also found that fairness of working conditions, welfare environment, and working hours had a positive (+) effect on job satisfaction.

Table 6: The Effect of Job Factors on Job Satisfaction

Independent variables	Unstandardized Coefficient		Standardized Coefficient	t-value	p-value
	B	S.E	Beta		
Constant	1.057	.199		5.300	.000
Working environment	.217	.052	.245	4.137	.000
Relationships	.446	.060	.415	7.440	.000
Compensation system	.141	.044	.185	3.178	.002

Note: $R^2=.485$, Adjusted $R^2=.478$, $F=72.779(df1=3, df2=232)$, $p=.000$, Dependent variable: Job satisfaction

4.3.2. The Effect of Job Factors on Turnover Intention

Table 7 presents the results of multiple regression

analysis on the effect of job factors on job turnover intention. With $R^2=.319$, it has 31.9% explanatory power for the effect of job factors on turnover intention, but when

the adjusted R² value is applied, R²=.310 and final explanatory power can be seen as 31.0%.

Looking at the influence of independent variables, it was found that working environment ($t=-5.943$, $p<.001$) and human relations ($t=-3.016$, $p<.01$) had a direct negative (-) effect on turnover intention. The reward system ($t=-.893$, $p>.01$) appeared, and statistical significance was not secured. Looking at the results of the preceding study, Cho and Kang (2017) stated that the higher the satisfaction with the relationship, job content, and promotion of the hairdresser's boss, the lower the turnover intention. Kim and Park (2014) stated that the work environment factor has a statistically negative (-) effect on turnover intention. The influence of the work environment and human relations on turnover intention was similar to the result of this study, but the compensation system partially showed difference.

Table 7: The Effect of Job Factors on Turnover Intention

Independent variable	Standardized Regression Coefficient		Standardized Coefficient	t-value	p-value
	B	S.E.			
Constant	5.246	0.307		17.079	.000
Working environment	-.479	.081	-.405	-5.943	.000
Relationships	-.279	.092	-.194	-3.016	.003
Compensation system	-.061	.068	-.060	-.893	.373

$R^2=.319$, Adjusted $R^2=.310$, $F=36.147(df_1=3, df_2=232)$, $p=.000$

4.3.3. Analysis of DISC Behavior Type

In order to subdivide the DISC behavior type group to investigate, the optimal number of clusters identified through hierarchical cluster analysis, and the final cluster was classified using K-means cluster analysis. As a result, of the total 236 respondents, S-type was the most common with 41.1% (97), I-type 27.5% (65), C-type 16.5% (39), D-type 14.8% (35). Appeared. Table 8 presented the analysis results.

Table 8: DISC Behavior Type of Survey Subject

	Division	Frequency(N)	Percent (%)
Type of DISC	D type	35	14.8
	I type	65	27.5
	S type	97	41.1
	C type	39	16.5
Sum		236	100.0

4.3.4. Moderating Effect of DISC Behavior Types on the Relationship

Table 9 presents the results of multiple regression analysis to find out whether the DISC behavior type has a moderating effect on the relationship between job factors and job satisfaction. Type D showed significance in the reward system ($t=2.467$, $p<.05$) and human relationships ($t=3.072$, $p<.05$), and type I only showed significance in human relationships ($t=3.308$, $p<.01$). S type showed significance in working environment ($t=4.587$, $p<.001$), compensation system ($t=3.100$, $p<.01$), and human relations ($t=2.848$, $p<.01$).

The significance of type C was confirmed only in human relationships ($t=4.447$, $p<.001$). When applying the adjusted R² value, the explanatory power of variables in the multiple regression for each DISC personality type was the highest in the C type (50.8%) and the lowest in the I type (30.2%). Type D affected by the compensation system and human relationships in job satisfaction.

It can be said that type I affected by human relations, type S is affected by work environment, compensation system, and human relations, and type C is influenced by human relations. Occupational groups are different, but the results of analysis of the relationship between sub-factors of job satisfaction such as human relations, work environment, pay and promotion, and DISC behavior patterns in the study of Ingsih et al. (2020) on childcare teachers are similar.

Table 9: Moderation Effect of DISC Behavior Type on Job Satisfaction (Dependent variable : Job satisfaction)

Type of DISC	Independent variable	Standardized Regression Coefficient		Standardized Coefficient	t-value	p-value
		B	S.E.			
D type	Constant	1.239	.652		1.899	0.67
	Working environment	-.052	.146	-.061	-.355	.725
	Relationships	.577	.188	.493	3.072	.004
	Compensation system	.258	.105	.373	2.467	.019
$R^2=.449$, Adjusted $R^2=.395$, $F=8.404(df_1=3, df_2=31)$, $p=.000$						
I type	Constant	1.681	.425		3.958	.000
	Working environment	.156	.102	.185	1.530	.131

	Relationships	.446	.135	.444	3.308	.002
	Compensation system	.030	.096	.043	.315	.754

$R^2=.334$, Adjusted $R^2=.302$, $F=10.216(df_1=3, df_2=35)$, $p=.000$

S type	Constant	1.116	.269		4.145	.000
	Working environment	.341	.074	.407	4.587	.000
	Relationships	.235	.083	.235	2.848	.005
	Compensation system	.196	.063	.258	3.100	.003

$R^2=.535$, Adjusted $R^2=.520$, $F=35.614(df_1=3, df_2=35)$, $p=.000$

C type	Constant	.735	.544		1.351	.185
	Working environment	.206	.118	.287	1.749	.089
	Relationships	.665	.150	.568	4.447	.000
	Compensation system	.009	.100	.014	.087	.932

$R^2=.547$, Adjusted $R^2=.508$, $F=14.080(df_1=3, df_2=35)$, $p=.000$

4.3.5. Moderating Effect of DISC Behavior Types on the Relationship

Table 10 indicates the results of multiple regression analysis to find out whether the DISC behavior type has a moderating effect on the relationship between job factors and turnover intention. There were no statistically

significant variables for type D, type I in the working environment ($t=-2.311$, $p<.05$), type S in the working environment ($t=-5.235$, $p<.001$), and type C in the working environment ($t=-5.235$, $p<.001$). Significance was confirmed in the working environment ($t=-3.082$, $p<.01$) and human relations ($t=-2.133$, $p<.05$).

Table 10: Moderation Effect of DISC Behavior Type on Job Satisfaction (Dependent variable : Job change)

Type of DISC	Independent variable	Standardized Regression Coefficient		Standardized Coefficient	t-value	p-value
		B	S.E.			
D type	Constant	5.138	.874		5.878	.000
	Working environment	-.250	.196	-.244	-1.276	.212
	Relationships	-.370	.251	-.263	-1.471	.151
	Compensation system	-.166	.140	-.199	-1.183	.246

$R^2=.317$, Adjusted $R^2=.251$, $F=4.800(df_1=3, df_2=31)$, $p=.007$

I type	Constant	4.798	.731		6.563	.000
	Working environment	-.406	.176	-.312	-2.311	.024
	Relationships	-.182	.232	-.118	-.782	.437
	Compensation system	-.047	.166	-.043	-.286	.776

$R^2=.164$, Adjusted $R^2=.123$, $F=3.991(df_1=3, df_2=61)$, $p=.012$

S type	Constant	5.317	.393		13.523	.000
	Working environment	-.568	.109	-.511	-5.235	.000
	Relationships	-.146	.121	-.110	-1.212	.229
	Compensation system	-.147	.092	-.146	-1.592	.115

$R^2=.438$, Adjusted $R^2=.420$, $F=24.143(df_1=3, df_2=93)$, $p=.000$

C type	Constant	6.204	1.059		5.861	.000
	Working environment	-.706	.229	-.579	-3.082	.004
	Relationships	-.621	.291	-.313	-2.133	.040
	Compensation system	.191	.194	.189	.985	.332

$R^2=.404$, Adjusted $R^2=.353$, $F=7.902(df_1=3, df_2=35)$, $p=.000$

When applying the adjusted R² value, the explanatory power of the regression model by DISC personality type was the highest at 42.0% for the S type and the lowest at 12.3% for the D type.

In other words, the effect of job factors on turnover intention by DISC type did not show any significant effect on type D. It can be said that type I is affected by human relations, type S is influenced by work environment, compensation system, and human relations, and type C is influenced by work environment and human affairs.

4.3.6. Summary of Hypothesis Test Results

Technology in all industries has great potential to improve service delivery, but it also changes the role of frontline service personnel. Customer's assessment of service quality is a critical information for service providers whose aim is to improve business performance, strengthen core competencies and position themselves more strategically in the market place (Jain & Gupta 2004).

This study aimed to demonstrate basic data for efficient improvement in the hair salon industry in the management of human resources based on this analysis of the effect of the DISC behavior patterns of hair salon workers on job satisfaction and turnover intention.

In this study, we found that the working environment, human relations, and compensation system derived as job factors had a direct effect on job satisfaction, and among job factors, working environment and human relations had a significant influence on turnover intention. In addition, when classified according to the four classification criteria of the DISC behavior type, S-type was the most common with 41.1% and I-type 27.5%, followed by C-type 16.5% and D-type 14.8%. S-types are indecisive because they follow the opinions of others well for harmony and are passive in change and challenge, they try to share even the smallest parts in the way of communication, and their behavior tends to be a bit slow. Type I is relationship-oriented, prioritizes communication and enjoyment in work, values flexibility and creativity, and tends to show a lot of interest in others. In this study, the reason that S and I type appeared a lot is to be that in the position of the study subjects, interns were 32.2% and hair designers were 30.1%. Therefore, in a result of the separation criteria of the DISC behavior type, hair salon workers tend to practice a lot of interest and expression in relationships with others as a person-oriented type.

In all four DISC behavior types, human relations among job factors showed a moderating effect on job satisfaction. This can be interpreted as having different causes for each DISC behavior type, but feeling common difficulties in relation to human relations. The nature of the hair salon's work is interdependent and should be on collaboration, because the

preferred work method, communication method, and important orientation are different for each DISC behavior type.

Among the DISC behavioral types, I, S and C showed a moderating effect in the working environment, and D-type did not appear, which can be attributed to D-type's awareness of the environment. Task-oriented type D accepts obstacles as targets for overcoming if the goal is clear, so it is interpreted that factors such as working hours, workload, holidays, salary, working environment, meal environment, and number of workers do not affect turnover intention. However, for type I, S, and C type workers, the working environment is considered as the key factors in the decision to turnover. In order to secure and maintain excellent human resources, managers are considered to need to make constant efforts to balance all elements of the work environment. The study limitations represent that the sample number of subjects was 236 and the age group was mainly in their 20s, so there is a limit to generalization. Therefore, a more comprehensive study is required in the future. This study is expected to be used as basic data for improving work environment and efficient human management in the hair beauty industry.

References

- Bang, G. H. (2010). Relation between the DISC Behavior, Coping Type and Level of Stress and Job Satisfaction, Organizational Commitment of Hospital Employees. *Korea journal of hospital management*, 15(3), 17-32
- Bluedorn, A. C. (1982). The Theories of Turnover-causes, Effects, Meaning. *Research in the Sociology of Organizations*, 7(1), 75-128.
- Chae, M. J. (2020). Individual Employees' Service Failures and Customer Satisfaction with the Firm. *Journal of Distribution Science*, 18(8), 35-45.
- Cho, J. H., & Kang, Y. (2017). Cross-Cultural Comparisons of Effects of Person-Organization Fit Regarding Time Orientations on Anticipated Job Satisfaction and Job Stress among Millennials. *Journal of Public Relations*, 21(2), 39-68.
- Choi, J., & Song, Y. J. (2018). Differences in quality of sleep, job stress, fatigue, job satisfaction, and posttraumatic stress disorder according to the type of work in fire-fighting officers. *Korean J Emerg Med Ser*, 22(3), 149-162.
- Christ-Brendemühl, S., & Schaarschmidt, M. (2020). The impact of service employees' technostress on customer satisfaction and delight: A dyadic analysis. *Journal of Business Research*, 117, 378-388.
- Chun, J. M., Jeong, J. E., Joo, H. S., Choi, W. Y., & Jyumh, C. Y. (2016). Job Satisfaction and Organizational Commitment of White Collars: Focus on Job Title. *Journal of Distribution Science*, 14(8), 23-33.
- Díaz-Carrión, R., Navajas-Romero, V., & Casas-Rosal, J. (2020). Comparing working conditions and job satisfaction in hospitality workers across Europe. *International Journal of*

- Hospitality Management*, 90, 1026-1031.
- Hillen, U., Dickel, H., Löffler, H., Pfützner, W., Mahler, V., Becker, D., Brasch, J., Worm, M., Fuchs, T., John, S. M., & Geier, J. (2011). Late reactions to patch test preparations with reduced concentrations of p-phenylenediamine: a multicentre investigation of the German Contact Dermatitis Research Group. *Environmental and Occupational Dermatitis*, 64(4), 196-202. <https://doi.org/10.1111/j.1600-0536.2010.01855.x>
- Ingsih, K., Prayitno, A., Waluyo, D. E., & Suhana, S. (2020). Mediating Roles of Job Satisfaction toward the Organizational Commitment of Employees in the Public Sector. *Journal of Asian Finance, Economics and Business*, 7(10), 999-1006.
- Jain, S. K. & Gupta, G. (2004). Measuring Service Quality: SERVQUAL vs. SERVPERF Scales. *Vikalpa*, 29 (2), 25-37.
- Jang, Y. H., & Jung, S. J. (2014). Importance for Quality Management Analysis of Beauty Services. *Journal of the Korean Society of Cosmetology*, 20(2), 268-274.
- Jo, M. H., & Yang, E. J. (2018). DiSC behavior type, scalp-hair care recognition, scalp-hair care behavior. *Journal of the Korea Convergence Society*, 9(10), 415-421.
- Jung, M. H., & Moon, J.S. (2018). A Study on the Effect of Beauty Service of the Elderly on Successful Ageing: Focused on Mediated Effect of Self-esteem. *Journal of Asian Finance, Economics and Business*, 5(4), 213-223.
- Kim, B. I., & Kim, B. G. (2020). Job Satisfaction and Organizational Commitment and Effect of HRD in Logistics Industry. *Journal of Distribution Science*, 18(4), 27-37.
- Kim, H. K. (2011). Pro-environmental Health Behavior: A Concept Analysis. *Korean J Adult Nurs*, 23(6), 527-542.
- Kim, S. N., & Park, S. M. (2014). Determinants of job satisfaction and turnover intentions of public employees: evidence from US federal agencies. *International Review of Public Administration*, 19(1), 63-90. <http://dx.doi.org/10.1080/12294659.2014.887354>
- Kim, T. Y., & Lee, S. N. (2018). The Mediating Effect of Job Satisfaction on the Relationship between Internal Marketing and the Customer Orientation of Employees in the Beauty Service Industry. *Asian Journal of Beauty and Cosmetology*, 16(4), 555-567.
- Kim, J. H., & Jang, S. N. (2016). The Relationship between Job Stress, Job Satisfaction, and the Symptom Checklist-90-Revision (SCL-90-R) in Marine Officers on Board. *J Prev Med Public Health*, 16(49), 376-385. <https://doi.org/10.3961/jpmph.16.046>
- Kwan, J. H., & Lau, W. Y. (2020). Do Firm Characteristics and Industry Matter in Determining Corporate Cash Holdings? Evidence from Hospitality Firms. *Journal of Asian Finance, Economics and Business*, 7(2), 9-20. <https://doi.org/10.13106/KODISA Journals.2020.vol7.no2.9>
- Lee, J. W., Kwag, M., & Potluri, R. M. (2015). Antecedents of Acceptance of Social Networking Sites in Retail Franchise and Restaurant Businesses. *Journal of Asian Finance, Economics and Business*, 2(1), 29-36. <https://doi.org/10.13106/KODISA Journals.2015.vol2.no1.29>
- Lee, S. K., & Lee, D. H. (2017). A Study on Factors Affecting Turnover Intention of Jewelry Distribution Distributor. *Journal of Distribution Science*, 15(9), 17-26.
- Lee, S. H., & Park, C. J. (2015). "Servicescape" Differentiation in a Hair Salon. *Journal of Distribution Science*, 13(9), 71-79.
- Locke, E. A. (1976). The Nature and Cause of Job Satisfaction. *Industrial and Organizational Psychology*, 1, 1297-1343.
- Milne, N. Louwen, C., Reidlinger, D., Bishop, J., Dalton, M., & Crane, L. (2019). Physiotherapy students' DISC behavior styles can use to predict the likelihood of success in clinical placements. *BMC Medical Education*, 19(1), 379-386.
- Mobley, W. H. (1977). Intermediate Linkages in The Relationship Between Job Satisfaction and Employee Turnover. *Journal of Applied Psychology*, 62(2), 227-240.
- Moon, D. B., Joug, Y., & Kim, J. O. (2019). Structural Relations among Hair Salons' Personal Social Services, Customer Value, Customer Trust, Positive Emotion, and Revisit Intention. *Journal of The Korean Society of cosmetology*, 25(3), 571-582.
- Mushtaq, A., & Amjad, M. S., & Saeed, M. M. (2014). The Moderating Effect of Perceived Alternative Job Opportunities between Organizational Justice and Job Satisfaction: Evidence from Developing Countries. *East Asian Journal of Business Management*, 4(1), 5-13.
- Nguyen, T. H., & Tu, V. B. (2020). Social Responsibility, Organizational Commitment, and Organizational Performance: Food Processing Enterprises in the Mekong River Delta. *Journal of Asian Finance, Economics and Business*, 7(2), 309-316. <https://doi.org/10.13106/KODISA Journals.2020.vol7.no2.309>
- Park, C. J., Lee, S. M., & Hahm, S. P. (2019). Structural Relationship among Job Satisfaction, Job Commitment, and Job Performance: A Comparative Study of Franchise vs. Local Coffee Store. *Culinary Science & Hospitality Research*, 25(2), 26-31.
- Park, S. Y., & Rhee, Y. S. (2015). The Effects of Communication, Hair Designer's Skill and Service Management on Customer Satisfaction and Switching Intention in Hairdressing Services. *Journal of The Korean Society of cosmetology*, 21(1), 41-51.
- Shim, Y. J., & Oh, H. C. (2016). The Structure Analysis of Emotional Labor of Hotel Employees, Job Stress, Job Satisfaction and Turnover Intention: Focused on Deluxe Hotels of Busan Area. *Journal of Tourism and Leisure Research*, 28(2), 179-198.
- Thi, T., & Nguyen, N. (2020). Developing and validating five-construct model of customer satisfaction in beauty and cosmetic E-commerce. *Heliyon*, 6(9), 48-87.
- Tran, T., Tu, M., & Vu, N. (2018). Cyclic siloxanes in indoor environments from hair salons in Hanoi, Vietnam: Emission sources, spatial distribution, and implications for human exposure. *Chemosphere*, 212, 330-336.
- Vandenberg, R. J., & Nelson, J. B. (1999). Disaggregating the Motives Underlying Turnover Intentions: When Do Intentions Predict Turnover Behavior. *Human Relations*, 52(10), 1313-1336.
- Wang, C., Xua, J., Zhang, T., & Li, D. (2020). Effects of professional identity on turnover intention in China's hotel employees: The mediating role of employee engagement and job satisfaction. *Journal of Hospitality and Tourism Management*, 45, 10-22.
- Yang J. J., & Ahn, S. C. (2020). The Effects of Attitude, Subjective Norm, and Behavioral Intention on Perceived Values in Traditional Marketplaces. *Journal of Distribution Science*, 18(10), 25-38.

- Yoo, E. H. (2015). The Effects of Psychological Consumption Value on Customer Satisfaction and Loyalty in the Context of Hair Beauty Services. *Asian journal of beauty and cosmetology*, 13(5), 655-662
- Yoo, E. J., & Park, S. Y. (2020). Relationship between Airline's Distribution Services SNS Content and Customer Satisfaction. *Journal of Distribution Science*, 18(8), 5-14.
- Yoo, S. E., & Park, K. H. (2020). Impact of Hairdresser Human Service Quality on Customer Loyalty. *Journal of The Korean Society of cosmetology*, 26(3), 507-516.
- Youn, C. S., & Jeon, M. J. (2019). An Exploratory Study on Determinants of Multi-Dimensional Turnover in the Beauty Service Employees. *Journal of the Korean Beauty Industry Society*, 13(2), 5-19.
- Youn, M. K., Kim, Y. O., Lee, M. K., & Seo, N. (2006). Domestic restrictions on the opening of retail stores. *Journal of Distribution Science*, 6(2), 121-160.