# Quantitative Measurement of Job Satisfaction and Antecedents in the Automotive Industry: Review of Instruments in the Last Two Decades

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### **Abstract**

The study reviews available quantitative instruments that research can use to measure job satisfaction and its antecedents in the automotive industry. Search and collection of literature used in this study using Google Scholar, Emerald Journal, and Elsevier Journal finder using the phrase job satisfaction, the automotive industry and its antecedents for 2010 to 2020. The literature search focuses on the instruments used to measure job satisfaction. In the automotive industry. This study analyzes each job satisfactions instrument used by comparing where the research takes place. The antecedent variables studied were the dimensions of job satisfaction and the number of citations available. The research instruments used are of many variations. Researchers can use the appliance to measure job satisfaction with or without modifying the content in the job satisfaction instrument used. The researcher can choose the right instrument according to environmental conditions, antecedent variables, and the purpose of the research being conducted.

Keywords job satisfaction; automotive industry; meta-analysis



## I. Introduction

During the COVID-19 pandemic, which hurt Indonesia's economic conditions, companies experienced a decline in sales, reduced workforce, and compensation for surviving this pandemic (Kurniawan, 2020). Employee job satisfaction can be described as the main factor that can keep employees in an organization. Job satisfaction can be described as a reaction to the overall conditions received by a worker on the overall work activity and components related to the work he does. Employees who are satisfied in doing their jobs will undoubtedly do more quality work to improve the employees' performance and the company (Indrayani & Al Qarny, 2020).

Job satisfaction has a significant impact on an organization. These benefits include keeping employees staying, reducing employee turnover to save employee recruitment costs, saving training costs incurred by the organization, employees being consistent with their attendance every day, reducing workplace accidents, and increasing employee life satisfaction (Robbins, 2017).

The automotive industry in Indonesia has overgrown in recent years. Many automotive manufacturers are starting to look to Indonesia as a production base because they see that the automotive market still provides promising business prospects, in line with Gaikindo's statement that new car sales will grow 50% from 2020 (Purnama, 2021). The main reason why the automotive industry has such an important position is the proximity to other industries. The automotive industry benefits from producing many different industries. Industries include iron and steel, glass, plastics, textiles, electronics

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and electricity. The automotive industry's contribution in 2017 to the national level was 10.16% and was able to absorb 1.2 million workers (Hidayat, 2018).

The outbreak of this virus has an impact of a nation and Globally (Ningrum et al, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020). Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020). The COVID-19 pandemic has dramatically affected the automotive industry in Indonesia because it caused people's purchasing power to decline, new car sales fell by more than 50%, reduction of contract employees in both the car sales and service area, and cuts in employee compensation (Thomas, 2020). This causes the performance of employees in the automotive industry sector to decline. If this is allowed, employee turnover in the automotive industry (turnover intention) will increase. It is hazardous for the survival of the automotive industry (Huang et al., 2016). Because employees of the automotive industry cannot just anyone can run it, people who work in the automotive sector must undergo special training and special certification to provide quality services for customers (Shen & Tang, 2018). This is the reason for how vital job satisfaction in the automotive industry is to maintain and improve.

This study will explore the job satisfaction research that has been done with the criteria of a minimum number of citations of fifteen. This illustrates that the investigation is essential and has become a reference for many researchers. This research can also provide an overview for automotive industry players to maintain the retention of employees who have worked during the COVID-19 pandemic.

## II. Review of Literature

Job satisfaction experienced by a member of the organization can be reflected in his attitude when working. When an employee gets a question about job satisfaction and gives a satisfying answer, it does not necessarily mean that the employee is delighted with his job. One's job satisfaction will be seen by the employee's attitude at work (Robbins, 2017).

The researchers expressed that attitude has three components: cognitive component, affective component and behavioural component. The understanding of each component can be explained as follows: the mental component is composed of beliefs, opinions, knowledge or information, the affective component is a person's feelings and emotions, and the behavioural component is a person's intention to take action on people or events in a certain way (Robbins, 2017). The three components will undoubtedly describe whether a member of the organization is satisfied at work or not. Research findings in China state that cognitive job satisfaction will be more effective with good company policies while affective job satisfaction leads to low employee turnover in an organization (Huang et al., 2016).

An employee's job satisfaction can be defined as a person's positive feelings towards the work done resulting from the evaluation of the job. So it can say that an employee who is satisfied with his career has positive feelings while an employee who is dissatisfied with his job has negative emotions (Robbins, 2017).

In both manufacturing and dealers (car sales and service), employee job satisfaction has become a concern to measure in the automotive industry. Yilmaz, (2002) research in the field of car sales in America states that the performance of sales staff is influenced by employee job satisfaction which will result in commitment to their work. This study uses the salesperson's intrinsic and extrinsic job satisfaction scale (Lucas et al., 1987). Job

satisfaction is related to the performance of sales staff so that sales managers can use ways to keep sales staff performance following the targets set for them.

In 2012 research on job satisfaction in the automotive industry sector was still ongoing. Swarnalatha & Sureshkrishna (2012) researched job satisfaction among employees in the automotive industry in India, and the study found that the level of job satisfaction of moderate employees and top management leaders need to pay attention to increasing the level of employee job satisfaction. This research shows that employee jobs can obtain satisfaction through empowerment, Teamwork, compensation, and leadership roles. There is a significant relationship between employee empowerment, Teamwork, employee compensation, and management leadership.

Continuing to 2018, 2018 also researched employee job satisfaction and examined the role of training and employee job satisfaction in the southern Chinese automotive industry. Training indirectly affects customer service quality through the mediation of training transfer and job satisfaction. Organizational support is also crucial for employee job satisfaction. This study uses a job satisfaction scale adopted from Cammann, Fichman, Jenkins and Klesh, (1979), the dimensions measured are place, work, and place and work, the number of questions in the questionnaire are three items (Shen & Tang, 2018).

The three studies show that from the early 2000s until now, job satisfaction of employees in the automotive industry has become the attention of researchers to be used as research material. His research locations are in various countries and automotive sectors, starting from dealers new car sales and in-car manufacturing plants. There are different research instruments on employee job satisfaction. This is what makes the job satisfaction appeal of the automotive industry to be researched.

## III. Research Method

In this study, researchers collected articles using the help of google scholar with the range of years 2000-2020 that includes the keyword "employee(employee)", "job satisfaction(job satisfaction)", "automobile industry(automotive industries)", with the number of citations a minimum of 15. Searching for articles with these criteria resulted in 15 themes discussed in this study.

# IV. Results and Discussion

The research results that have been carried out are obtained as a summary of research effects on job satisfaction that has been carried out from 2000-2020 in various countries in table 1.

**Table 1.** Job Satisfaction Research Instruments

Title	Author	Country	Year	Citation	Variables	Instrument	Dimensions	Statement
					Antecedent			
Sales Person	Cengiz Yilmaz	America	2002	84	performance	Respondents'	3 item	3 item
Performance and Job					Salesperson	self-reported,		
Attitudes Revisited an						long-term		
Extended Model and						performances		
Effects of Potential						in the sales		
moderators						(Harris and		
						Schaubroeck,		
						1988)		
The Relationship	Askin Keser	Turkey	2005	36	life	life	Five items	Five items
Between Job and Life		1			satisfaction	Satisfaction		

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Satisfaction in Automobile Sector Employees in Bursa - Turkey						Scale (Diener et al., 1985, 71-75)		
The Effect of Job and Environmental Factors on Job Satisfaction in Automotive Industries	Siti Zawiah Md. Dawal & Zahari Taha	Malaysia	2006	87	a. Organizational work b. Environmental factors	Job diagnostic survey (JDS) by Hackman and Oldham (1974)	a. five items b. four items	a. five items b. 4 item
The Effect of Working Relationship Quality on Salesperson Performance and Job Satisfaction: Adaptive Selling Behavior in Korean Automobile Sales Representatives	Jeong Eun Park and George D. Deitzb	South Korea	2006	181	Quality of employment relationship	Working relationship quality by Park and Deitz (2006)	Six items	Six items
HR Factors Affecting Repatriate Job Satisfaction and Job Attachment for Japanese Managers	Michael J. Stevens, Gary Oddou, Norihito Furuya, Allan Bird and Mark Mendenhall	America	2006	108	a. HR policies and practices b. Adjustment	Consists of the dimensions of work adjustment, Black, (1988)	a. 11 items b. 14 items	a. 11 items b. 14 items
Examining the Role of Transformational Leadership and Job Satisfaction in the Organizational Learning of an Automotive Manufacturing Company	Seyyed Mohammad Mirkamali, Fatemeh Narenji Thani, Farnoosh Alami	Iran	2011	71	Transformatio nal Leadership Organizational learning	a.b.a.  Multifactor  Leadership  Questionnaire  (MLQ), Singh,  (2008) b. The  organizational  learning  questionnaire,  Kazemi,  (2006)	a. four items b. eight items	a. 20 items b. 30 items
Job Satisfaction among Employees of Automotive Industries in India	C. Swarnalatha and G. Sureshkrishna	India	2012	25	a. Employee empowerment b. Teamwork c. Employee compensation d. Management leadership			
Readiness for Change and Job Satisfaction in A Case of Lean Management Application A Comparative Study	Agnieszka Lipińska - Grobelny and Ewelina Papieska	Poland	2012	26	a. Influence of work b. Readiness for change	a. Job Affect Scale by Brief et al., (1988) b. Change- Readiness Scale by Kriegel and Brandt, (1996)	a. two items b. two items	a. 20 items b. six items
Impact of The Relationship Between Transformational and Traditional Leadership Styles on Iran's Automobile Industry Job Satisfaction	Ali Yaghoubipoor, Ong Puay Tee, and Elsadig Musa Ahmed	Iran	2013	49	a. Transformatio nal leadership style b. Traditional leadership style	The MLQ developed by Avolio and Bass (1991)	a. four items b. two items	a. 16 items b. eight items

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Determining the Impact of Age and LOS on Job Satisfaction: a Case Study of Pakistan Automotive Industry	Sheikh Zahoor Sarwara, Ebtisam Mirzaa, Nadeem Ehsana, Khushnoor Khan, and Huma Hanif	Pakistan	2013	19	a. Salary b. Promotion c. Supervision d. Allowance e. Contingent compensation f. Working conditions g. Colleagues h. Nature of work i. Communicatio n j. Term of office k. Age	Job Satisfaction Survey (JSS), Spector, (1985)		
A Manufacturing- Oriented Model for Evaluating the Satisfaction of Workers Evidence from Turkey	Omer Ozturkoglu, Ebru E. Saygılı, and Yucel Ozturkoglu	Turkey	2016	23	a. Work environment b. Ergonomics and safety c. HR and management policies d. Facilities and equipment	A new conceptual model of job satisfaction (Ozturkoglu et al., 2016)	a. nine items b. eight items c. nine items d. eight items	
Job Satisfaction and Turnover Intention in China: The Moderating Effects of Job Alternatives and Policy Support	Shenglan Huang, Zhi Chen, Hefu Liu, and Liying Zhou	China	2016	30	a. Alternative work b. Policy support	a. Job alternatives questionnaire, Yoon et al. (2011) b. Policy support questionnaire, Sheng et al. (2011)	a. four items b. six items	a. four items b. six items
How Does Training Improve Customer Service Quality? The Roles of Transfer of Training and Job Satisfaction	Jie Shen and Chunyong Tang	China	2018	46	Training Training	opportunities, Marler et al., (2006) and training effectiveness, Curry, (1997)	4 item	4 item
Do Lean Manufacturing Practices hurt Job Satisfaction?	Khaw Sui Minh, Suhaiza Zailani, Moh. Iranmanesh, and Shima Heidari	Malaysia	2019	17	characteristics	JobJob diagnostic survey, Hackman and Oldham (1975).	Eight items	Nine items

The table above illustrates that the instruments used in research in the automotive industry have various variations. The most straightforward mechanism is the *job satisfaction scale*, Cammann et al., (1979) in *How Does Training Improve Customer Service Quality? The Roles of Transfer of Training and Job Satisfaction* (Shen & Tang, 2018) have three dimensions: a place, work, and place and work. The number of questions is only three items.

Instruments that have complex dimensions are *The Job Satisfaction Scale (JSS)*, *Bass and Avolio's (1997)* in "Impact of The Relationship Between Transformational and

Traditional Leadership Styles on Iran's Automobile Industry Job Satisfaction" (Yaghoubipoor et al., 2013), with ten dimensions including extrinsic motivators (interpersonal relations, policies and administration, salary, supervision and working conditions) and intrinsic motivators (achievement, growth, recognition, responsibility and the work itself) so that it can detect various dimensions that are factors of job satisfaction.

There are many antecedent variables in the research on job satisfaction in the automotive industry. The least antecedent variable in the study *How Does Training Improve Customer Service Quality? The Roles of Transfer of Training and Job Satisfaction* (Shen & Tang, 2018) only has one variable: training and research. *Do Lean Manufacturing Practices hurt Job Satisfaction?* (Minh et al., 2019). So that future research can reconsider the selection of antecedent variables to get more accurate research results.

## V. Conclusion

Job satisfaction in the automotive industry is an essential topic for research, which has been evident during the last two decades (2000 - 2020). Various kinds of research have been carried out in multiple countries. The instruments used to measure job satisfaction also vary. This illustrates that the mechanism used to measure job satisfaction has its uniqueness and can be used according to the researcher's needs.

Researchers need to choose the right instrument according to the needs and antecedent variables being studied when measuring job satisfaction in the automotive industry. Some considerations that need to be made in choosing research instruments include the conditions of society between different countries. The antecedent variables used by researchers also need to be adjusted so that the research results that it will obtain can describe the conditions of job satisfaction in the company.

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