

Zeglat, Dia; Mukattash, Ibrahim

Article

Toward developing a national customer satisfaction index in Jordan

Global Business & Finance Review (GBFR)

Provided in Cooperation with:

People & Global Business Association (P&GBA), Seoul

Suggested Citation: Zeglat, Dia; Mukattash, Ibrahim (2023) : Toward developing a national customer satisfaction index in Jordan, Global Business & Finance Review (GBFR), ISSN 2384-1648, People & Global Business Association (P&GBA), Seoul, Vol. 28, Iss. 3, pp. 1-14, <https://doi.org/10.17549/gbfr.2023.28.3.1>

This Version is available at:

<https://hdl.handle.net/10419/305895>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by-nc/4.0/>

Toward Developing a National Customer Satisfaction Index in Jordan

Dia Zeglat^a, Ibrahim Mukattash^{b†}

^aAssociate Professor, Business School, The Hashemite University, 13115, Jordan - Zarqa

^bAssistant Professor, Marketing Department, Applied Science Private University, MEU Research Unit, Middle East University, Amman- Jordan

ABSTRACT

Purpose: This research aims to develop a national index to measure customer satisfaction in Jordan. Based on householders' perspectives and assessments, this index will form a national measurement of customer satisfaction with goods and services offered in Jordan.

Design/methodology/approach: The researchers performed a systematic literature review (SLR) by reading and analyzing the previous primary studies, using pre-specified search and inclusion criteria. In this study customer satisfaction index was defined and developed to the same degree as those that adopted specified customer satisfaction index principles in their development and application.

Findings: Using the developed Jordanian Customer Satisfaction Index (JCSI), each sector, industry, and company included in the index will get a customer satisfaction score. The JCSI will measure customer satisfaction in 15 major economic sectors in Jordan. It contains three items to measure and track customer satisfaction using three facets of satisfaction—an overall rating of satisfaction, performance against expectations, and performance against the customer's ideal service.

Research limitations/implications: The JCSI will encourage all Jordanian household consumers to give customer satisfaction feedback on purchasing and using goods and services. In this regard, this proposed national index will be helpful for consumers, managers, and policymakers.

Originality/value: This paper developed a national customer satisfaction index in Jordan by using two perspectives (i.e., micro and macro levels). The proposed index in this paper is going to offer a multi-industry index to measure and benchmark Jordanian consumers' satisfaction with goods and services produced and delivered in the Jordanian market.

Keywords: Customer satisfaction, National index, Customers, Users, Purchasers, and Jordan.

I. Introduction

The world nowadays is full of uncertainty, rapid change, and markets and economies are unpredictable; the economic and social advantages of the competition must be evaluated from numerous financial and non-

financial standpoints. As technology advancement is rapid, merged with increased globalization and continuously changing customer needs, from a micro-economic perspective, companies need performance measurements to capture past, present, and future performance (Ananthram & Pearson, 2007). The increased importance of intangible assets in firms leads to challenges when relying solely on financial performance measurements. These need to effectively capture the value of intangible non-financial assets such as brand awareness, customer satisfaction, and

Received: Dec. 7, 2022; Revised: Feb. 19, 2023; Accepted: Feb. 27, 2023

† Ibrahim Mukattash

E-mail: i_mukattash@asu.edu.jo

loyalty (Hallencreutz & Parmler, 2019). More, from a macroeconomic perspective, the quality of economic productivity can be measured by consumer satisfaction, as consumer spending considerably influences the Gross domestic product (GDP). Thus, the increase in consumer expenditure can affect the national economy through consumer satisfaction (Agag & Eid, 2020). Accordingly, this research considers customer satisfaction a significant indicator of macroeconomic and microeconomic levels.

In this regard, customer satisfaction is a crucial concept of marketing. As discussed by Ajami, Elola, and Pastor (2018), Setiawan (2021), and Ariffin, Zain, Menon, and Aziz (2022), one of the essential academics who addressed this concept was Oliver (1980), who refers to satisfaction as a feeling that comes from one or several customer experiences. In addition, Fornell (1992) states that satisfaction represents the overall evaluation of customers' accumulative experience while using a product and service over time.

Customer satisfaction directly impacts any business's primary sources of future revenue streams (Heskett, Sasser, and Schlesinger, 1997; Yazdanbanah & Feyzabad, 2017). Ajami et al. (2018) state that having an accumulative perspective of satisfaction will create an indicator at the global market (macroeconomic) level and the single company (microeconomic) level. Customer satisfaction has received significant attention since the eighties due to increased competition and the development of the service sector worldwide (Xin, & Choi, 2020; Tran & Vu, 2019). As a result, several countries have designed and implemented national indices to measure customer satisfaction.

In this regard, Fornell (1992) considers measuring and indexing customer satisfaction as critical to supporting the economic performance of companies and countries by providing insightful information to consumers, managers, shareholders, investors, and government regulators. He also states that tracking customer satisfaction nationwide has become essential in many countries worldwide. Therefore, Fornell (1992) urges all nations to develop a national index system for two levels of benefits - the macro-level benefit of providing the economy with a vital source to

improve the standard of living and the micro-level benefit that helps by giving an idea of to what extent customers are satisfied at the company level.

Anderson and Fornell (2000) address the following questions: *'How do we know if an economy is performing well?'* and *'How do we know if a company is performing well?'* They answered these questions by confirming the need to develop a national customer satisfaction index (NCSI) to close the gap between what we know and what we need to know. According to Anderson and Fornell (2000), customer satisfaction reflects the actual status of any economy, as the extent to which an economy satisfies its consumers is much more important than the number of goods produced.

Measuring and tracking customer satisfaction should be performed using systematic and standardized procedures. The need for a national customer satisfaction index at the national and company levels is evident. Based on such an index, a more accurate view of economic status and outcomes will be attained, leading to better economic policy decisions and improvements in the standard of living.

Bruhn and Grund (2000) state that due to changes in the markets, such as extreme competition among competitors, innovations in all industries and sectors, globalization, and the free exchange of goods and services among countries, benchmarking at the national and international levels has become imperative. In other words, comparing factors such as customer satisfaction in all sectors (and even in other countries) using a macroeconomic approach is necessary. Furthermore, as a result of implementing a uniform CSI measurement, more growth can be guaranteed. Therefore, Anderson and Fornell (2000) call for scholars and practitioners to develop an international network of CSIs that use the same methodology and measures.

According to Johnson et al. (2001), several international models for measuring customer satisfaction using different components within a continuum of cause-and-effect relationships have been developed. The authors state that reviews and tests of well-known CSIs have been undertaken to modify and improve an NCSI. Johnson, Anderson, and Fornell (1995) state that the study of customer satisfaction is grouped

into two different perspectives/levels, transaction-specific satisfaction, and cumulative satisfaction. Recent research has turned the focus from a transactional perspective (e.g., the impact of emotions in satisfaction evaluations, perceived service quality, and satisfaction) to a more cumulative and overall perspective of specific products and services to measure the overall level of satisfaction. Dermanov and Eklöf (2001) summarise the benefits of having a CSI to develop customer retention programs. These benefits include exploring drivers of satisfaction and dissatisfaction, indicating to management where a company stands based on customer satisfaction and a comparison of competitors' scores and updating management regarding efforts to improve customer satisfaction, and answering why customers defect.

Based on the above, it is clear that it is vital to develop an NCSI. According to the knowledge of the researcher, there is no severe and rigid index to measure customer satisfaction in Jordan at the macro level, although the relevant literature reveals two attempts to develop a CSI in Jordan (see Awad, 2012; and Al-Nasser, Al-Rawwash, and Alakhras, 2011). However, these efforts did not result in a standardized NCSI based on macro and micro perspectives. Therefore, there is a need to develop and implement an NCSI using the two perspectives (macro and micro) for customers, manufacturers, service providers, and policymakers in Jordan.

II. Theoretical Basis

The customer satisfaction concept evaluates customers' purchasing and consumption (Fornell, 1992). Churchill and Surprenant (1982) and Oliver (1981) offers a very classical definition and conceptualization of customer satisfaction, depicting this concept as a result of differences between pre-purchase expectations and post-purchase perceived and actual performance of products and services (i.e., disconfirmation theory). Fecikova (2004) refers to customer satisfaction as

feelings related to evaluating what is received compared to what is expected and promised. The author suggests that companies need to minimize the causes of customer complaints. In this regard, Tse and Wilton (1988) highlight the importance of the direct effect of perceived performance rather than expectations on satisfaction and its importance in contributing to customer satisfaction.

Oliver (1981) states that although customer satisfaction is an evaluation of the product acquisition and consumption experience, understanding theories relating to this phenomenon is vital as such theories provide a clearer perception of consumers' responses and outcomes. More precisely, Oliver (1981) suggests reviewing the Adaptation-Level Theory and the Opponent Process Theory to see how they explain the disconfirmation phases in customer satisfaction.

Historically, customer satisfaction has been studied using two different perspectives: the transaction-specific perspective, which focuses on a single transaction of experience with a product or service encounter, and the cumulative perspective, which focuses on the overall experience with a product or service to date (Johnson, Anderson and Fornell, 1995). Iliéska (2013) suggests that customer satisfaction can be assessed by evaluating specific features or characteristics of a product or service or even by evaluating the whole product/service. However, the cumulative approach has gained more acceptance by researchers and practitioners. It concentrates more on depicting and predicting future behavior and consequences regarding the decision to re-purchase; this is in contrast to the transaction perspective, in which consumers use their up-to-date evaluation of the consumption experience and purchase, not just having a single transaction view (Johnson, Anderson, and Fornell, 1995).

The literature discusses several national indices for measuring customer satisfaction. For example, Bruhn and Grund (2000) highlight the benefits of having and using NCSIs, such as the easy comparison of companies, industries, sectors, and nations (enabling industry- and sector-specific analyses). In addition, such national customer satisfaction tools can offer competitive benchmarking data, making it easier to assess companies' performance sustainably. Moreover,

NCSIs serve stakeholders by providing individual customers with information about specific companies and industries' outcomes and national competitiveness, which can be used in purchasing and consumption decisions.

Dermanov and Eklöf (2001) state that more value, insights, and knowledge will be gained when benchmarking customer satisfaction values against something else; this is because having a single number for customer satisfaction rarely reveals any meaningful insights, mainly if dealing with different business sectors. Dermanov and Eklöf (2001) provide justifications for benchmarking and comparing the results of CSIs at different levels, considering benchmarking as an essential tool for systematically comparing the outcomes of different dimensions to understand individual performance and how it can be improved. Any CSI, they argue, should be viewed as a significant marketing and quality enhancement tool for any nation.

Eklöf and Westlund (1998) state that understanding and measuring customers' evaluation of products and services are essential for studying the economy's

performance. The authors developed four levels of understanding economy - the regional, national, industry (or individual company), and consumer levels. However, there is a knowledge gap regarding the dissemination of information about the quality of products and services by consumers. Accordingly, the authors suggest developing a CSI at the national and company levels to carry out regular measurements.

The following table sheds some light on existing well-known indices and scales to measure customer satisfaction in different settings, nations, sectors, and industries.

As shown in Table 1 and based on a comparison of several global customer satisfaction frameworks, it is evident that the most common approach to measuring customer satisfaction involves using multiple perspectives and facets. Therefore, most of the frameworks mentioned in this paper are summarised in Table 1. The table indicates three perspectives for measuring customer satisfaction - overall satisfaction rating, performance against expectations, and performance against customers' ideal service.

Table 1. Key Customer Satisfaction Indices

Frameworks	Scope and Level of Analysis	No. of Respondents	Perspectives and Dimensions of Customer Satisfaction	No. Industry Covered
SCSB by Fornell (1992).	1-industry comparisons, 2-comparison of individual firms within the industry average, 3-comparisons over time.	25,000 per year.	3 Facets of customer satisfaction (i.e., general satisfaction, confirmation of expectations, the distance from the customer's hypothetical ideal product.	30 Industry.
ACSI by Anderson, Fornell, and Lehmann (1994)	1-Firm level, two national levels, 3- industry levels, and four economic sector levels.	Two hundred fifty customers per company surveyed at the brand or model level.	Three dimensions of CS include; overall satisfaction rating, performance against expectations, and performance against customer's ideal service.	Seven major economic sectors covering 40 industries. This classification is more accurate than other classifications to offer homogeneity among companies and makes comparisons easier.
Awad, 2011	Jordan's mobile services sector level only.	447 users and subscribers of mobile phones in Jordan from only three major universities in Jordan.	Three dimensions of CS including; overall rating of satisfaction, performance against expectations, and performance against customer's ideal service.	Jordanian Mobile Phone Sector only.
SWICS by Bruhn and Grund (2000)	National and industry-specific level perspectives.	upon 7400 telephone interviews with about 3800 customers.	three indicators: global satisfaction with the product or the service; the satisfaction compared to the expectations before consumption; and the satisfaction compared to an ideal product or service.	20 industries within six sectors were covered.

Table 1. Continued

Frameworks	Scope and Level of Analysis	No. of Respondents	Perspectives and Dimensions of Customer Satisfaction	No. Industry Covered
EPSI by Eklof and Westlund (2002)	1-General public domain, 2- Pan-European sector-specific results, 3- Pan-European sector-specific results, 4- company-specific.	NA	Overall measurement of customer satisfaction only.	11 European countries, including the following sectors; utilities, post, public services, financial, telecommunications (mobile & landline), and supermarkets.
(JCSI) By Al-Nasser	Industry-Specific Perspective.	250 respondents.	Overall Measurement of Customer Satisfaction.	Vocational training sector in Jordan.
NSCB by Johnson et al. (2001)	National and industry levels.	2755 respondents were interviewed for 15 minutes interview.	Three perspectives of CS, including; overall Satisfaction, Expectation Disconfirmation, Performance verse Comparison with ideal.	Five industries (banks, airlines, bus transportation, service stations, and station transportation).
MCSI by Abdullah, Husain and El-Nassir (2001)	Nationwide and Multi-industry levels.	250 customers of every single service sector collected among the 14-industry sector.	Three dimensions of CS include; overall satisfaction rating, performance against expectations, and performance against customer's ideal service.	14 Industry sectors are covering 40 organizations from the selected sectors.
NCSB by Johnson et al., (2001)	National index level.	9600 customers in Norway	Quality, image, and loyalty, besides customer satisfaction.	Five different industries, including airline, banks, bus transportation, service station, and train transportation

In addition to the above, the literature reveals some other models and frameworks for CSI. Kristensen et al. (2000) developed a model to measure customer satisfaction for Post Denmark, a state-owned company with more than 33,000 employees, based on the European Customer Satisfaction Index (ECSI). The scale uses generic customer satisfaction measures and measures selected mainly for Post Denmark. Obato-Calleros et al. (2013) developed an index using a case study approach to measure customer satisfaction from the perspective of Mexican users of social programs (MUSI-SP). The authors used a model developed to measure government services and non-profit organizations based on the American Customer Satisfaction Index (ACSI)

Paddeu, Fancello, and Fadda (2017) developed a scale to measure customer satisfaction in the logistics industry. The index was developed to measure the quality of services at an urban freight consolidation center. The CSI_{mod} index is considered an enhanced version of the CSI, focusing on customer dissatisfaction. Thus, a better understanding can be acquired through critically analyzing failures and ways to avoid

or manage them. According to Paddeu et al. (2017), the CSI_{mod} helps understand why customers are dissatisfied and indicates areas where improvement is needed.

O'Loughlin and Coenders (2004) highlight that customer satisfaction is vital in achieving a successful position in the market. They compared customers' feedback using the maximum likelihood (ML) approach and the partial least squares (PLS) approach to estimate the CSI. Their findings indicate that the ML approach is more potent than the PLS approach in measuring and estimating the CSI model, although both are robust.

The recent literature has shown several efforts for using existing CSIs. For instance, Hamzah et al. (2022) tried to assess the E-campus system using the customer satisfaction index approach. The approach to measuring users' satisfaction with services offered was based on the confirmatory method. Further, Nuraina et al. (2022) used the CSI methodology to measure the quality of logistics service in the dairy cooperative feed facilities from the farmers' perspectives. Praseptiawan et al. (2022) assessed the e-commerce applications used and developed in Indonesia using

the CSI methodology to measure users' satisfaction. Saraswati et al. (2022) used the pre-developed and well-established customer satisfaction index (i.e., INACS) to assess passengers' satisfaction in Indonesian Airports to find the strengths and weaknesses of airports. Saraswati et al. (2022) used secondary data from the INACS regarding ten quality dimensions in Airports over the last five years. Finally, Pezeshki et al. (2020) developed a model for measuring customer satisfaction in Iranian public universities. After reviewing key indices that emerged in the literature, two stages of development have been used to develop this new satisfaction index. As a result, they found that three dimensions should be used to measure students' satisfaction: perceived quality, organization image, and student relationship management.

Chikkabagewadi et al. (2022) measured users' satisfaction with bus services by analyzing their assessments of the quality of bus services and measuring users' perceptions of several characteristics of bus services and their expectations based on the CS methodology. Setiowati et al. (2022) used the CSI to measure students' satisfaction with online learning experiences during the pandemic of COVID-19. Moreover, Yuliyanto et al. (2022) used the CSI methodology to measure users' satisfaction with learning management software (LMS) by comparing performance assessments and users' expectations for several attributes of such learning systems. Finally, Rajagukguk and Wibowo (2022) measured customer satisfaction in motorcycle services using the CSI, i.e., the gap analysis between expectations and customer perceptions. However, Rajagukguk and Wibowo (2022) used the SERVQUAL scale to assess users' perceptions of motorcycle service quality.

Based on the preceding discussions, none of the recent papers displayed in the literature review part published recently has developed or established a new national index similar to the seminal indices that emerged in the early literature, such as the SCSB by ACSI by Anderson et al., (1994) and Fornell (1992). Moreover, most papers published recently used an industry-specific approach, not an accurate wide national scale that offers macro and micro perspectives

as suggested and developed in this current paper. Moreover, the authors of this paper claim that the authors of the new and recent papers discussed previously were interested in testing antecedents and consequences of CS, i.e., causal effects. In addition, most of the recent papers have used the dimensions of service qualities (tangibility, responsiveness, empathy, reliability, and assurance) as dimensions of CS rather than measuring the actual concept of CS as developed by Oliver (1980), who refers to satisfaction as a feeling that comes from one or several customer experiences and Fornell (1992) who states that satisfaction represents the overall evaluation of the accumulative experience that customers have while using a product and service over time. In addition, the recent studies in this study used the (IPA) method to convert the users' perceptions of service quality assessed into a score out of 100%.

After reviewing the relevant literature, the present study will adopt the methodology developed and introduced in the vital seminal indices such as ACSI (Anderson et al., 1994) and SCSB (Fornell, 1992). Moreover, this study will not use the recent paper's approach by using several dimensions of service quality since the aim of the current paper is to develop a national customer satisfaction index at the macro and micro levels covering several industries and sectors and not measuring the service quality perceptions as a measure of customer satisfaction.

III. Methodology

The researchers performed a systematic literature review (SLR) by reading and analyzing the previous primary studies, using pre-specified search and inclusion criteria. In this study customer satisfaction index was defined and developed to the same degree as those that adopted specified customer satisfaction index principles in their development and application. In this regard, the researchers reviewed 31 papers published in highly ranked journals and highly cited

papers on google scholar starting from 1980 and up to 2021. According to Tranfield et al. (2003, pp. 220), SLR methodology is valuable *"For practitioners/managers, and the systematic review helps develop a reliable knowledge base by accumulating knowledge from various studies."* Furthermore, SLR is a core in pragmatic managerial and social research, aiming to squeeze the science to serve better academics, practitioners, and policymakers (Morgan, 2007; Tranfield et al., 2003). Therefore, many well-known satisfaction models exist, including The American Customer Satisfaction Index (ACSI) and the European Customer Satisfaction Index, and others mentioned in the literature review (Table 1). Further, this research is designed to be representative of the Jordanian economy as it covers the fifteen major economic sectors to be assessed by Jordanian consumers.

IV. Results

Based on the literature review, this research will develop a national CSI using different facets of satisfaction to cover several sectors and industries. In other words, similar to the critical CSIs discussed in the literature, the proposed national index developed here aims to represent Jordan's economy as a whole; the basis of this is the classification of the economic activities in Jordan developed by the Jordanian Department of Statistics (DOS) and supported by the Jordanian Central Bank. The proposed JCSI will adopt the method of the DOS Census of Economic Establishments (CEE) for classifying economic establishments and activities in Jordan and will represent the country's key industries, sectors, and business activities. The CEE report covers all the economic activities according to the International Standard Industrial Classification of all Economic Activities issued by the United Nations. According to the CEE document and classification, fifteen key economic activities will be included in the proposed JCSI. These are listed in Table 2.

Table 2. Key economic activities (sectors) included in the JCSI

Code	Economic Activity
01	Manufacturing Industries
02	Electricity and Gas Supply
03	Water Supply
04	Retail Trade
05	Transportation
06	Accommodation and Food Service Activities
07	Information and Communication
08	Financial and Insurance Activities
09	Real Estate Activities
10	Professional, Scientific, and Technical Activities
11	Administrative and Support Service Activities
12	Education
13	Human Health and Social Work Activities
14	Arts, Entertainment, and Recreation
15	Public Administration

Source: Census of Economic Establishments, Department of Statistics, Jordan

However, several activities have been excluded from the JCSI for technical and feasibility reasons, including mining and quarrying, construction, agricultural activities, military activities, diplomatic missions and consulates, and extraterritorial organizations and bodies. The rationale behind selecting the 15 critical economic activities and sectors are that the proposed national index aims to cover only sectors, industries, and companies that produce goods and services sold to and used directly by householders.

In terms of the operationalization of the proposed JCSI, four levels of codes will be generated for every single level of economic activity, as shown in Table 3. First, the critical economic activities will be allocated a two-digit standard industrial classification code. Within each significant economic activity (sector), three-digit standard industrial codes will be developed for every single major industry group. Moreover, if necessary, several sub-industries will get a four-digit standard industrial code within every major industry group. Finally, companies in every industry will get a five-digit standard industrial code.

Table 3 shows how the classification of economic

Table 3. Levels of codes and economic activities

Levels of Codes	Codes	Levels of Economic Activities	Economic Activity
Two-Digit Code	01	Essential Economic Activity (Sector)	e.g., Manufacturing Industries
Three-Digit Code	01-1	Single Major Industry Group	e.g., the Manufacture of Food Products
Four-Digit Code	01-1-1	Several Sub-Industries	e.g., the Manufacture of Dairy Products
Five-Digit Code	01-1-1-1	Single Company	e.g., Teebah

Source: Researchers

Table 4. Measures of customer satisfaction

Perspective	Statement
Overall Satisfaction	Overall, how satisfied are you with the goods or services you bought or used?
Disconfirmation Satisfaction	Considering your expectations, to what extent the goods or services you bought or used has fallen short of or exceeded your expectations?
Ideal Service Level	How the performance of goods or services you bought or used is close to your ideal provider in this category?

activities published by the DOS in Jordan will be used and coded in this paper according to the different levels and types of single and sub-economic activities. In measures and scales used in the proposed JCSI, multiple indicators are used based on previous studies. More precisely, the JCSI's questions for measuring customer satisfaction are identical to those in the ACSI, as shown in Table 4. In more detail, a 10-point Likert scale is used to measure customer satisfaction, ranging from the lowest (1) to the highest (10). Using a 10-point rating scale is to minimize the statistical problem of skewness and gives more opportunities for customers to discriminate among answers and options (Fornell et al., 1996).

An online approach will be used for the proposed JCSI, and a website will be developed. Appendix shows the questions and items used in the proposed national index.

As shown in Table 4, measuring customer satisfaction will be conducted using three measures - the overall rating of satisfaction, the degree to which performance falls short or exceeds expectations, and a rating of performance relative to the customer's ideal goods or services in a specific category. As mentioned, the proposed national index will apply the same methodology as the ACSI to determine customer satisfaction scores by calculating the average

of the three customer satisfaction questions that measure different facets of satisfaction with a product or service. The average score calculated based on the three questions will be converted to a score on a 0 to 100-point scale by multiplying the average for a single economic activity, a single primary sector, several industries, and a company's score by the number 10. In this way, the JCSI will be able to evaluate customer satisfaction for each company by having a score out of 100. Moreover, the JCSI will be able to rank companies at all levels, including several industries, a single primary industry, and a single economic activity (national level).

Questions for the developed CSI were pilot tested by giving the scale to several consumers. This stage was conducted in Amman, and consumers from different cities in Jordan (Zarqa, Irbid, Karak, and Aqaba) participated to ensure diverse opinions and answers. Ten responses were collected.

At the pilot test stage, the respondents were encouraged to give feedback about the ease of understanding the items in the index. Some respondents mentioned problems relating to allocating the goods and services in the groups and the options mentioned in the questionnaire. As a result, the researcher added examples for every economic activity (sector) to make it easier for respondents to allocate the goods or

services they evaluated. In addition, some minor changes were made for the different age groups. The respondents showed a good understanding of the three items to measure their satisfaction. Accordingly, the researcher decided to keep those three items adopted from the ACSI.

The developed CSI will use a random sample design to ensure qualified respondents are selected to participate. Johnson et al.'s (2001) approach in the Norwegian model will be adopted for the proposed customers (respondents) who have recently purchased or consumed goods or services from companies listed in the JCSI chosen randomly from a database of buyers in Jordan.

In terms of procedures for selecting respondents, non-probability samples of customers will be used for the proposed JCSI. Prospective respondents will be selected if one condition is met: the 'purchase of specific goods or services within defined purchase and consumption periods.' These periods vary from three years for the purchase of a significant durable to within the past month for frequently purchased consumer goods and services to having a current bank account or insurance policy in the person's name. Once the condition is met, the customer can answer the three questions to measure customer satisfaction and some demographic questions. It should be noted that the JCSI is intended for consumers aged 18 or older.

V. Discussion

This paper has reviewed the leading national indices to measure customer satisfaction discussed in the literature. Based on this, a nationwide customer satisfaction index to measure customer satisfaction in Jordan was developed to be used as a benchmark for consumers, producers, providers, and policymakers at the macro and micro levels. The study provides some operational and tactical procedures for implementing the CSI as a national project in Jordan.

Compared to all the frameworks for measuring customer satisfaction discussed in the literature, the procedures for screening, evaluating, and selecting consumers/respondents for the JCSI are different. The JCSI will encourage Jordanian household consumers to give their customer satisfaction feedback after purchasing or using the recently consumed goods and services via the website developed for this purpose. Consumers will not be approached via telephone, as was the case for most previous models measuring customer satisfaction.

According to the proposed JCSI, each sector, industry, and company will be measured throughout the year. However, the JCSI will be updated quarterly on a rolling basis, with new data replacing data from the previous quarter and year.

Previous national frameworks for measuring customer satisfaction suggested that large companies be included in every economic activity and significant industry group. Doing this may help ensure an adequate representation of the national economy and make data collection and finding potential respondents easier. In addition, two to eight companies should be included for every major industry group. As a result, 30 companies could be included in every economic activity to represent the industry reasonably. In developing the JCSI, large companies with significant turnover and revenue should be included. Lists and directories published by the Amman Stock Market and Exchange (<https://www.ase.com.jo/ar/bulletins/yearly/new>) will be used to determine effective indicators for significant companies and players in the key economic activities in Jordan.

Respondents must have purchased or used goods and services related to the critical economic activities identified above within a specific period, which ranges from currently to three years, as shown below:

- Using it currently
- Within the past week
- Within the past month
- Within the past three months
- Within the past six months
- Within the past year

- Within the past two years
- Within the past three years

This range depends on the type of goods or services under investigation. For instance, three years is acceptable for evaluating customer satisfaction with major durable items. On the other hand, within a month is acceptable for frequently purchased consumer goods and services, and using it currently is acceptable in the case of utility services, insurance policies, and bank accounts.

Regarding the reason for having the proposed CSI focus on companies, sectors, and industries, Cassel (1993) recommends that to assure efficiency and accuracy, it is better to focus the analysis on the aggregate company level instead of a product or brand level. In this regard, any results of any national framework for customer satisfaction will cover individual companies, meaning there is a balanced mix of companies' goods and services.

VI. Conclusion

The researchers reviewed the leading consumer satisfaction indices developed by previous research (Bruhn & Grund, 2000; Dermanov & Eklöf, 2001; Eklöf & Westlund, 1998; Kristensen et al., 2000; Obato-Calleros et al., 2013 etc.) Consequently, to examine customer satisfaction, the researchers reviewed the most significant studies measuring customer satisfaction. Afterward, the researchers developed the JSCI.

The proposed JCSI is an NCSI index for Jordan's 15 economic activities and sectors. Therefore, the JCSI should be representative of the whole Jordanian economy and market. Data will be collected from consumers purchasing and using household goods and services to measure customer satisfaction and determine scores. The data will come from random consumers giving their feedback on goods and services using a computer-based online survey via

a website developed for the purpose (www.jcsi.net) and funded by local institutions in Jordan. Based on the preceding discussion, developing a national index for measuring customer satisfaction is vital to ensure the economy performs well. Some researchers have developed new indices for measuring customer satisfaction, and others have re-used and re-applied the ACSI and SCSB in their countries. This paper has reviewed and summarised existing key indices discussed in the literature to use the latest trends, measures, and scales to develop a national index to measure customer satisfaction in Jordan.

The proposed JCSI represents a national and multi-industry index to measure and benchmark Jordanian consumers' satisfaction with household goods and services offered in the Jordanian market. If developed and used correctly, the JCSI will help score companies, industries, and sectors and compare them cross-sectional in a given period. Therefore, this study urges organizations and institutions (e.g., the Ministry of Industry and Trade, National Community for Consumer Protection, Department of Statistics, and universities) to fund and use the index as a national tool to collect, store and analyse data to create reports. As a result, national satisfaction indices are feasible and practical instruments for identifying, analyzing, and forecasting companies' economic values and production efficiency levels, national economies, the purchasing power of the Jordanian consumer, and consumer preferences.

In this regard, the research contributed if the policymakers and other non-governmental organizations, such as the Jordanian customer protection organization, adopted the JSCI. The JCSI, on a micro-level, will be a good indicator of the consumer (individual or household) buying power and the efficiency of companies' production. It will make companies understand the Jordanian consumer better to serve them better and ensure that they are stratified. Regarding the Macro-level, the JSCI will be a good indicator of the national economic health and performance.

References

- Abdullah, M., Husain, N., & El-Nassir, A. (2001). Theory and Development of Customer Satisfaction Index: The Malaysian Index of Customer Satisfaction. In *The 6th of TQM World Congress*, Saint Petersburg.
- Agag, G., & Eid, R. (2020). Which consumer feedback metrics are the most valuable in driving consumer expenditure in the tourism industries? A view from macroeconomic perspective. *Tourism Management*, 80, 104109.
- Ajami, M., Elolam L., & Pastor, J. (2018). Validation and Improvement of the European Customer Satisfaction Index for the Spanish Wine Sector. *The TQM Journal*, 30(2), 133-152.
- Al-Nasser, A., Al-Rawwash, M., & Alakhras, A. (2011). An Approach to Setting Up A National Customer Satisfaction Index: The Jordan Case Study. *Journal of Applied Statistics*, 38(9), 1977-1993.
- Ananthram, S., & Pearson, C. (2007). Macro Level Drivers of Globalization in Indian and Chinese Service Organizations: An Empirical Study. *Global Business & Finance Review*, 12(3), 63-75.
- Anderson, E., & Fornell, C. (2000). Foundations of the American Customer Satisfaction Index. *Total Quality Management*, 11(7), 869-882.
- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing*, 58(3), 53.
- Ariffin, A., Zain, N., Menon, B., & Aziz, A. (2022). The Customer Satisfaction Index Model: An Empirical Study of the Private Healthcare Sector in Malaysia. *Journal of Asian Finance, Economics, and Business*, 9(1), 93-103.
- Awwad, M. (2012). An application of the American Customer Satisfaction Index (ACSI) in the Jordanian mobile phone sector. *The TQM Journal*, 24(6), 529-541.
- Bruhn, M., & Grund, M. (2000). Theory, Development and Implementation of National Customer Satisfaction Indices: The Swiss Index of Customer Satisfaction (SWICS). *Total Quality Management*, 11(7), 1017-1028.
- Chikkabagewadi, S., Devappa, V., & Karjinni, V. (2022). Evaluation of the Bus Service Quality and a Strategy for Improvement Service: Based on Importance Performance Analysis and Customer Satisfaction Index Level. *Journal of Pharmaceutical Negative Results*, 13(7), 5441-5453.
- Department of Statistics. (2016). *Census of Economic Establishments*. Jordan.
- Demanov, V., & Eklöf, J. (2001). Using Aggregate Customer Satisfaction Index: Challenges and Problems of Comparison with Special Reference to Russia. *Total Quality Management*, 12(7-8), 1054-1063.
- Eklöf, J., & Westlund, A. (2002). The Pan-European Customer Satisfaction Index Program-Current Work and the Way Ahead. *Total Quality Management*, 13(8), 1099-1106.
- Eklöf, J., & Westlund, A. (1998). Customer Satisfaction Index and its Role in Quality Management. *Total Quality Management*, 9(4-5), 80-85.
- Eklöf, J., & Westlund, A. (2002). The Pan-European customer satisfaction index programme-current work and the way ahead. *Total Quality Management*, 13(8), 1099-1106.
- Fecikova, I. (2004). An Index Method for Measurement of Customer Satisfaction. *The TQM Magazine*, 16(1), 57-66.
- Fornell, C. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing*, 56(1), 6-21.
- Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). The American Customer Satisfaction Index: Nature, Purpose, and Findings. *Journal of Marketing*, 60(4), 7-18.
- Hallencreutz, J., & Parmler, J. (2021). Important drivers for customer satisfaction-from product focus to image and service quality. *Total Quality Management & Business Excellence*, 32(5-6), 501-510.
- Hamzah, M., Rahmadhani, R., & Purwati, A. (2022). An Integration of Webqual 4.0, Importance Performance Analysis and Customer Satisfaction Index on E-Campus. *Journal of System and Management Sciences*, 12(3), 25-50.
- Heskett, J., Sasser, W., & Schlesinger, L. (1997). *The Service Profit Chain: How Leading Companies Link Profit and Growth to Loyalty, Satisfaction, and Value*. New York: The Free Press.
- Ilieska, K. (2013). Customer Satisfaction Index - as a Base for Strategic Marketing Management. *TEM Journal*, 2(4), 327-331.
- Johnson, M., Anderson, E., & Fornell, C. (1995). Rational and Adaptive Performance Exceptions in A Customer Satisfaction Framework. *Journal of Consumer Research*, 21, 128-140.
- Johnson, M., Gustafsson, A., Andreassen, T., Lervik, L., & Cha, J. (2001). The Evolution and Future of National Customer Satisfaction Index Models. *Journal of Economic Psychology*, 22(2), 217-245.
- Kristensen, K., Martensen, A., & Gronholdt, L. (2000). Customer satisfaction measurement at Post Denmark: Results of application of the European Customer Satisfaction Index Methodology. *Total Quality Management*, 11(7), 1007-1015.
- Lobato-Calleros, O., Rivera, H., Serrato, H., Gómez, E., & Cervantes, P. (2013). The Mexican user satisfaction index: a case study applied to a social program. *The TQM Journal*, 25(4), 384-398.
- Yazdanpanah, M., & Feyzabad, F. R. (2017). Investigating Iranian Farmers' Satisfaction with Agricultural Extension Programs Using the American Customer Satisfaction Index. *Journal of Agricultural & Food Information*, 18(2), 123-135.
- Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, 1(1), 48-76.

- Nuraina, N., Hamidah, A., Despal, D., & Taufik, A. (2022). The Perception of the Farmer on Dairy Cooperative Feed Mill Logistics Service Using Customer Satisfaction Index (CSI) and Importance-Performance Analysis (IPA). In *IOP Conf. Series: Earth and Environmental Science*, Sweden.
- Oliver, R. A. (1980). Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions. *Journal of Marketing Research*, 17(4), 460-469.
- Oliver, R. A. (1981). Measurement and Evaluation of Satisfaction Process in Retail Setting. *Journal of Retailing*, 57(3), 25-48.
- O'Loughlin, C., & Coenders, G. (2004). Estimation of the European Customer Satisfaction Index: Maximum Likelihood versus Partial Least Squares. Application to Postal Services. *Total Quality Management & Business Excellence*, 15(9-10), 1231-1255.
- Paddeu, D., Fancello, G., & Fadda, P. (2017). An Experimental Customer Satisfaction Index to Evaluate the Performance of City Logistics Services. *Transport*, 32(3), 262-271.
- Pezeshki, R., Sabokro, M., & Jalilian, N. (2020). Developing Customer Satisfaction Index in Iranian Public Higher Education. *International Journal of Educational Management*, 34(7), 1093-1104.
- Praseptiawan, M., Gultom, M., & Untoro, M. (2022) The Evaluation of E-Commerce Using the Customer Satisfaction Index and Importance Performance Analysis. *Jurnal SISFOKOM*, 11(1), 60-65.
- Rajagukguk, J., and Wibowo, B. (2022). Study of Customer Satisfaction Index on The Reliability of Motor Services Using the ServQual Method In The Educational Environment: Case Study At Stap One Workshop, The International Halal Science and Technology Conference, Thailand
- Saraswati, M., Rifai, A., & Yudhistira, A. (2022). Review of Customer Satisfaction Index by INACA for Pattimura International Airport Ambon, Indonesia. *CITIZEN: Jurnal Ilmiah Multidisiplin Indonesia*, 2(5), 865-872.
- Setiawan, B. (2021). Customer Satisfaction Index Model on Three Levels of Socioeconomic Status in Bogor Case Study: Customer Satisfaction on Branded Cooking Oil Product. *ASEAN Marketing Journal*, 6(1), 15-24.
- Setiowati, N., Karim, A., & Santoso, E. (2022). Assessment of Students Satisfaction with Online Learning Experiences during the COVID-19 Pandemic: Customer Satisfaction Index and Importance Performance Analysis Case Study at Institut Teknologi Kalimantan. *SPECTA Journal of Technology*, 6(2), 149-157.
- Terblanche, N. (2006). An application of the American Customer Satisfaction Index (ACSI) in the South African Motor Vehicle Industry. *South African Journal of Business Management*, 37(4), 29-38.
- Tran, V. D., & Vu, Q. H. (2019). Inspecting the relationship among E-service quality, E-trust, E-customer satisfaction and behavioral intentions of online shopping customers. *Global Business & Finance Review (GBFR)*, 24(3), 29-42.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing Evidence-Informed management knowledge by Means of systematic review. *British Journal of Management*, 14(3), 207-222. doi:10.1111/1467-8551.00375
- Tse, D., & Wilton, P. (1988). Models of Consumer Satisfaction Formation: An Extension. *Journal of Marketing Research*, 25(2), 204-212.
- Yazdanpanah, M., & Feyzabad, F. (2017). Investigating Iranian Farmers' Satisfaction with Agricultural Extension Programs Using the American Customer Satisfaction Index. *Journal of Agricultural & Food Information*, 18(2), 123-135.
- Yuliyanto, H., Chotib, C., Subroto, A., Al Aufa, B., Sancoko, S., & Kusumaningrum, D. (2022) The Perception of SPADA-DIKTI Services in Underdeveloped Area Using Customer Satisfaction Index (CSI) and Importance Performance Analysis (IPA). *Proceedings*, 83(36), 1-7.
- Xin, G., & Choi, J. G. (2020). The impact of factors forming employee service attitude on service quality, customer satisfaction and loyalty in the hotel industry. *Global Business & Finance Review (GBFR)*, 25(3), 84-95.

Appendix

The JCSI Questionnaire

Q.1 Your Gender: ☐ Female ☐ Male

Q.2 Your Age Group:

- ☐ 18-34
- ☐ 35-54
- ☐ 55 and over

Q.3 Your Education

- ☐ Less than high school
- ☐ High school graduates
- ☐ Some college or associate degree
- ☐ Under-graduates
- ☐ Post-Graduate

Q.4 Select from the below options to which economic activity (sector) the goods or services you purchased or used recently belong and relate to:




- ☐ Manufacturing Industries (e.g., food, drinks, cigarettes, clothes, personal care, cleaning products, etc.).
- ☐ Electricity and Gas Supply
- ☐ Water Supply
- ☐ Retail Trade (e.g., sale of food, beverages, fuel, clothes, furniture, department stores, etc.).
- ☐ Transportation (e.g., ground, air, and freight transportation and postal services).
- ☐ Accommodation and Food Service Activities (e.g., hotels, furnished apartments, restaurants).
- ☐ Information and Communication (e.g., computer programming and consultancy, wired, wireless, and mobile telecommunication, media and newspapers, broadcasting radios and TVs).
- ☐ Financial and Insurance Activities (e.g., banks, stock market, and insurance services).
- ☐ Real Estate Activities
- ☐ Professional, Scientific, and Technical Activities (e.g., legal, accounting and auditing, management consultancy services, architectural services, scientific research, and development, advertising and market research services, etc.).
- ☐ Administrative and Support Service Activities (e.g., rental and leasing services, employment activities, travel agency and tour operator, security and investigation activities, services to building and landscaping, office and business support activities).
- ☐ Education
- ☐ Human Health and Social Work Activities (e.g., hospital services, residential care activities for older people and the disabled).
- ☐ Arts, Entertainment, and Recreation
- ☐ Public Administration

Q.5 What is the good or service you purchased or used recently, and what is the name of the company or provider? Please specify;

Q.6 When you have bought the good or used the service under evaluation:

- ☐ Using it currently
- ☐ Within the past week
- ☐ Within the past month
- ☐ Within the past three months
- ☐ Within the past six months
- ☐ Within the past year
- ☐ Within the past two years
- ☐ Within the past three years

Q.7 Direction: The statements presented below refer to your feedback and satisfaction with the goods and services you purchased and used recently, as specified in Q.5. After each statement, there are ten numbers from (1) to (10). Please circle the number that best describes your opinion. The lower the number means, the more you disagree with the statement. The higher the number means, the more you agree with the statement. If you agree between these two extremes, please pick any number from within the scale.

Overall, how satisfied are you with the goods or services you bought or used?	Strongly Dissatisfied									Strongly Satisfied
	1	2	3	4	5	6	7	8	9	10
How the performance of goods or services you bought or used is close to your ideal provider in this category?	Not Very Close to The Ideal									Very Close to The Ideal
	1	2	3	4	5	6	7	8	9	10
Considering your expectations, to what extent the goods or services you bought or used has fallen short of or exceeded your expectations?	It Falls Short of My Expectations									Exceeds My Expectations
	1	2	3	4	5	6	7	8	9	10