Abstract—The digital era has encouraged the hospitality industry to adopt the technological development to increase services to guests. This study examines the readiness index to change by hotel employees in facing the transformation of the hotel industry. This paper aims to analyze factors that contribute to the readiness index to change by employees of starred hotels. Data collected from surveys to hotel employees (287 respondents) in Makassar and Parepare city. This paper uses the Technology Readiness Index to analyze data from the survey. The study reveals that the readiness index to change by the hotel employees is at 3.36; the level is medium. Significant contributing factors should be maintained, whereas low contributing factors should be improved. This paper provides insight into the importance of the readiness index to change by the hotel employees. The study also indicates that contributing factors are essential information for hotels in establishing technology transformation in services. Appropriateness, change efficacy, management support, and personal valence can be used to measure readiness of employees to face transformation in the hotel or hospitality industry.

Keywords— Readiness index to change, Transformation, Technology, Hotel service

I. INTRODUCTION

The objective of our paper is to measure the readiness of change index in facing the transformation of the hotel industry, especially in starred hotels. The authenticity of this article lies in the use of technology readiness index (TRI) to measure the readiness of employees to transform in the hospitality sector in the era of the industrial revolution 4.0. In the 4.0 industrial revolution era, we face the sophistication and technological advancements such as internet of things (IoT), artificial intelligence (AI), augmented reality and virtual reality (AR / VR), mixed reality, big data, cloud, quantum computer, human-machine interface, robotics, 3D printing, and others. At the moment, every hotel industry faces the need for transformation. At the moment, guests need to have a new and pleasant hotel experience, faster service, product and service quality. Hotels as an organization that provides services to guests must be prepared to face changes in the era of transformation as it is today.

[1] ensuring the organization's readiness and capacity to adopt change is one of the most critical factors in influencing individual initiatives to make changes and addressing potential change failures. Thus, employees who are willing and ready to adopt change will be able to reduce the possibility of failure to implement change. [1] defines that readiness to change as individual beliefs, attitudes, and intentions that lead to support for change. In line with that, [2] define that readiness to change as a comprehensive attitude that is simultaneously influenced by the content of change, the process of change, the context of change and individual attributes which are collectively reflected in the cognitive and emotional aspects of the individual to show the extent to which the individual tends to accept, embrace, and adopt changes that are prepared to replace current conditions. [3] describe and evaluate their experience from their initial training with the president, through initial meetings from management to determine the strategy and structure of the new business unit, to the initial announcement of the company's full plan. [2] show that readiness for change is a multidimensional construct that is influenced by beliefs among employees that (a) they can implement the proposed change (i.e., change-specific efficacy), (b) the proposed change is appropriate for the organization (i.e., appropriateness), (c) leaders are committed to proposed changes (i.e., management support), and (d) proposed changes are beneficial to members of the organization (i.e., personal valence). [4] found that deficiencies in organizational readiness can undoubtedly cause significant problems for individual readiness, which can cause problems for institutions and their improvement initiatives. The issues can hamper the success of every change activity. [5] in his research, stated that employees of public sector organizations in developing countries could develop their positive attitudes and behaviours in the context of organizational change based on distributive and procedural justice. [5] states that demographic variables such as gender, age and marital status have no positive and significant relationship with employee readiness.

II. MATERIALS AND METHODS

A. Organizational Change Readiness

Any planned changes that will be made should start from the process of identifying the needs and diagnosis of responses from members of the organization to measure the level of readiness of the organization to change [1]. Organizational readiness for change is a set of common factors that may be needed but not always enough to make a change. Other factors can also influence whether specific
interventions are adopted or implemented [6]. For example, an intervention that is irrelevant to a program and not following the scheme being programmed, would not be possible to implement, regardless of the readiness for organizational change. Although it needs to be able to adapt to the desires of change and the environment, change for change does not always lead to more effective results. For example, organizations may emphasize change and keep up with the latest technology, so they neglect their primary mission [6].

Implementation of modes or technologies that are irrelevant or inconsistent with organizational culture can lead to counterproductive. The organization's readiness to make various changes as a function of how much members of the organization appreciate the changes and how beneficial the assessment of three main determinants of implementation capability: task demand, availability of resources, and situational factors [7]. If the level of readiness of the organization to change is high, then organizational members who value change are more likely to initiate change, exert more significant effort, show greater persistence and display more cooperative behaviour. The result is that implementation for making changes will be more effective. Changes also occur in the hotel industry sector, so hotels and employees must be ready to face these changes.

B. Change Management

Change management is any action or process taken to smoothly transition an individual or group from current conditions to desired conditions in the future [8]. Key steps for successful change management including assessing readiness for change, building a sense of urgency, forming a steering team, developing an implementation plan, carrying out trials, disseminating change, and anchoring change in the organization [8]. Adopting change management practices increases the chances of success because the focus is placed on the people in the organization who make things happen. The difficulties of organizational change are often exacerbated by mismanagement of resistance stemming from a series of simple assumptions that misunderstand the essential nature of resistance [9]. Management is advised to take great advantage of the techniques of managing resistance carefully to change by finding ways to use it rather than overcome it. Resistance was seen as an enemy, an enemy of change that must occur if the change is to succeed [9]. The latest literature contains much evidence that shows that resistance may indeed be beneficial and should not be ignored. Employees who work in the hospitality industry will try to keep up with the changes that occur even though they have a lot to learn or attend training.

Globalization, "globalization", deregulation, privatization, mergers, acquisitions, and the movement of labour to cheaper economic locations, are in line with revolutionary technological advances and simultaneous consumer empowerment in line with the need for change including the revolutionary forces affecting organizations in the whole world [10]. This means that organizations need to re-evaluate their goals and reasons. This evaluative process will help them to decide which changes: strategic or operational, must be done to maintain survival and growth. Organizations realize the importance of excellent communication. They often find it difficult to establish a relationship between "what is said" and "what is done". Initially, the aim of the organization is to explore the nature of the relationship between change, change management, and internal communication. Ultimately the organization aims to explore how internal communication contributes to "success" in implementing a change management program. Hotel management should be able to convey to all employees that the transformation or changes that occur can improve the performance of the hotel and its employees.

C. Technology Readiness Index

[11] stated that currently, to improve the quality and efficiency of services, many service operators including hotels use new technology, for example, customers who book rooms not only by telephone but can also use the internet. Existing hotels must be able to adapt to services that use new technology. [12] stated that technology readiness is the tendency of people to embrace and use new technology to achieve goals in life both at home and at work. Hotel managers should be able to consider the level of customer acceptance on technological transformation. Customer acceptance of technology can be measured through the technology readiness index (TRI). TRI uses several statements of trust or confidence in conducting surveys to measure the overall level of readiness for the use of technology from individuals and is a tool in studies to adopt technology. [12] provides three technology readiness categories in the Technology Readiness Index measurement as follows:

1) High Technology Readiness (TRI > 3.51)
2) Medium Technology Readiness (2.9 = TRI ≤ 3.51)
3) Low Technology Readiness (TRI ≤ 2.89)

Technology Readiness Index (TRI) is a multi-item scale with psychometric properties that companies can use to gain an in-depth understanding of the readability of their customers (both external and internal) to embrace and interact with technology, especially computers or internet-based technology. TRI can also be used to measure the readiness of internal customers, such as hotel employees to change technology. [13] stated that currently there had been some changes in the era of revolutionary technologies such as mobile commerce, social media and cloud computing which have a significant impact on people's lives.

D. Methodology

The paper uses a proportional stratified random sampling technique by distributing a survey questionnaire for data collection through the assistance of some hotel managers. The hotel has a different star or grade; the service quality would be different; therefore, this study regarded the starred hotels as the study scope. The starred hotels employees were involved in fulfilling the questionnaire survey. The researcher used analytical techniques such as descriptive statistics, Pearson's correlations, the multiple regression analysis on to Statistical Package for Social Sciences (SPSS) version 24.0 for Windows to analyse statistical data. The results of the questionnaire data were processed and tested by
validity, reliability and normality tests. Finally, hypotheses were tested using the Technology Readiness Index (TRI).

III. RESULTS AND DISCUSSION

A. Demographic Profiles of Respondents

Respondents in this study are employees of starred hotels in the province of South Sulawesi, Indonesia, namely employees of starred hotels in Makassar and Parepare. Respondent characteristics are sampled based on gender, age, education and department categories. The number of samples in the study were 287 hotel employees in both cities. Makassar and Parepare are cities in the province of South Sulawesi which are currently visited by many guests both for business activities, conventions and for travelling. Both of these cities also have many hotels which are categorized as significant and starred hotels. In detail, the characteristics of respondents can be seen in Fig. 1:

B. Technology Readiness Index: Organizational Change Readiness for Starred Hotels Employees

Test results about the level of technology readiness index of employees of starred hotels in Makassar and Parepare city can be seen in Table 1:

Source: Data processing results, 2019.
TABLE 1. TECHNOLOGY READINESS INDEX: ORGANIZATIONAL CHANGE READINESS STARRED HOTELS EMPLOYEES IN MAKASSAR AND PAREPARE CITY

<table>
<thead>
<tr>
<th>Factor</th>
<th>Index</th>
<th>Value Standard</th>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriateness</td>
<td>0.86</td>
<td>0.88 - 1.00</td>
<td>Below standard</td>
</tr>
<tr>
<td>Change Efficacy</td>
<td>0.67</td>
<td>0.88 - 1.00</td>
<td>Below standard</td>
</tr>
<tr>
<td>Management Support</td>
<td>0.89</td>
<td>0.88 - 1.00</td>
<td>Standard</td>
</tr>
<tr>
<td>Personal Valence</td>
<td>0.94</td>
<td>0.88 - 1.00</td>
<td>Standard</td>
</tr>
<tr>
<td>TRI's Score Total</td>
<td>3.36</td>
<td>3.51 ≥ n ≤ 4.00</td>
<td>Need to be improved</td>
</tr>
</tbody>
</table>

The results of the Technology Readiness Index analysis in Table 1 can be explained because the index of readiness to change starred hotels employees in Makassar City and Parepare in facing the transformation of the hotel industry based on the TRI method category has a total score of 3.36. Based on the categories developed by [13], as a basis for decision making in this study, the index value of 3.36 falls into the medium technology readiness index category. The index value shows that the management of starred hotels in Makassar and Parepare still needs positive efforts to improve the index of hotel employees' readiness to change in the face of the hospitality industry transformation. The results also showed the index value of each predictor of organizational change readiness. The value of the predictor appropriateness index in organizational change readiness reaches an index number of 0.86, which means that the "accuracy to make changes" is not optimal yet because it is still below the standard number 0.88 - 1.00. The predictor of change efficacy in organizational change readiness reaches an index number of 0.67, which means that the "confidence in the ability of self to change" is currently not maximized because it is still below the standard rate of 0.88 - 1.00. The predictor of management support in organizational change readiness reaches an index number of 0.89, which means that the "management support" currently carried out is optimal because it is in the standard range of 0.88 - 1.00. Whereas personal valence predictor in organizational change readiness reaches an index score of 0.94 which means that the "benefits for individuals that are done now are optimal because they are in the standard range of 0.88 - 1.00.

Through digital transformation in hospitality, hotel services can be further improved. Availability of Internet of Things (IoT) devices, hotel services have changed for room service bookings, access services at guest room entrances, guests can turn on the television, air conditioning on the way or before guests arrive at the room for example when guests are still in the hotel lobby. All this can be done in several hotels that already use new digital applications or technology. The positive impact of this service is to provide convenience to guests so that it will make the services provided to guests faster, more efficient and more productive without having to reduce the services provided to guests. So that quality service will create satisfaction to guests so that it has the potential to be a loyal guest or customer. This is in line with the results of previous research, which states that customer service-based IT perceptions and overall service quality will be better when their technology readiness index was higher. In other words, a better tourist perception of IT-based services and overall service quality will increase satisfaction and loyalty [11]. Another consequence of using digital technology is to cut some work from employees to be more efficient so that employees will have free time to do other work so that that employee performance can be further improved.

IV. CONCLUSION

Appropriateness, change efficacy, management support, and personal valence can be used as predictors in measuring the level of readiness to change of starred hotels employees in facing the transformation of the hospitality industry. Change readiness index of starred hotel employees in Province of South Sulawesi in facing the transformation of the hotel industry is at the medium technology readiness level because it is in the range between 2.90 to 3.51 (2.90 ≤ TRI = <3.51) with a score 3.36. Starred hotel employees must be able to face the transformation and utilize the latest digital technology in the hotel industry.

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