

HOW DURATION OF WAIT, PROVISION OF EXPLANATION AND SERVICE PROCESS STAGE IMPACT PERCEPTION OF WAITING TIME AND SERVICE EVALUATION?

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ABSTRACT

A major concern of service managers is to understand how different aspects of waiting influence customer's perceptions of their service. This study empirically examines how wait duration, the provision of an explanation and the process stage influence the customer's perception of waiting. Contrary to existing literature, in an "intermediate" wait, explanation is expected to show a negative effect on the customer's perception of waiting time, while in a "long" wait, explanation is expected to show a positive effect on the customer's perception of waiting time.

INTRODUCTION

Service industries have grown at a phenomenal pace over the last 100 years [1-3]. Customers often wait for service and their service wait experience appears to be a strong determinant of overall satisfaction with the service [1, 4, 5]. Waiting is a pervasive part of many service encounters, and there are many factors, both situational and individual to the customer, that impact the customer's perception of the wait and therefore the service [2, 6, 7]. Service managers may benefit from information about how perceived waiting time and judgment are influenced by the actual duration of the wait and situational factors [4]. Situational factors are those factors that are typically controllable by the service provider [2, 4].

The purpose of our research is to test how the customer's perception of waiting time is impacted by variations in situational factors (provision of an explanation and service stage) and by variations in the length of the wait? Furthermore, how does the customer's perception of the wait influence their overall satisfaction with the service? One of the most interesting aspects of this research is the testing of the premise that in waits of a longer duration, the provision of an explanation will positively affect the customer's perception of waiting time; while in waits of intermediate duration, the provision of an explanation will negatively affect the customer's perception of waiting time.

One of the first publications on wait management was Maister [8] in which eight propositions were developed regarding factors that influence wait time perceptions. The propositions are as follows: 1) occupied time feels shorter than unoccupied time; 2) people want to get started; 3) anxiety makes waits seem longer; 4) uncertain waits are longer than known finite waits; 5) unexplained waits are longer than explained waits; 6) unfair waits are longer than equitable waits; 7) the more valuable the service, the longer the customer will wait; and 8) solo waits feel longer than group waits.

Maister indicates, "The propositions presented here are by no means meant to be an exhaustive list of all the psychological considerations involved in managing customers' acceptance of

waiting time,” [8: 8]. Maister’s eight propositions have become one of the foundational works in the wait management area. Many researchers have utilized these eight propositions as a basis for their research studies on wait time [5, 7, 9-12].

Durrande-Moreau [2] analyzed ten years of empirical research on waiting in service situations utilizing Maister’s eight propositions as the basis for comparison. To compare data across multiple experiments, Durrande-Moreau grouped the variables into three categories: (1) stages of waiting: before or during the service; (2) individual or situational factors; and (3) wait duration and other factors. The distinction between individual and situational factors was that *situational* factors could be controlled by the service provider while *individual* factors were beyond the control of the service provider [2]. The individual factors are difficult for managers of service environments to control [2] so our research will focus on the controllable situational factors.

According to Durrande-Moreau [2] the situational factors linked to duration before the service have shown promise of influencing satisfaction or service evaluation. However, the situational factors during the service have shown counterintuitive results in the extant literature. Throughout the literature on wait management, there have been a number of experiments that expected situational factors would have a positive effect on perceived waiting time; however, there was a significant but opposite effect [13-15].

Hui and Tse [5] found that different types of duration information are more effective for different lengths of the delay. They found that queuing information was more effective in intermediate delays while duration information was more effective in long delays. Antonides, Verhoef, and Van Aalst [16] studied the impact of information on perceived waiting time during the service. These authors found that as duration of waiting time increases, the effect of information and duration information increased the negative effect of perceived waiting time. They suggest, “the rationale for this moderating effect is that the information provided makes customers more aware about the fact that they are waiting” [16: 196].

In a later study, Hui, Tse and Zhou [17] conducted an empirical study looking at delay reason and its interaction with delay duration information. These authors suggest that when a delay occurs, service providers should provide an estimate of the delay information and only if an estimate of the delay information is not available should any duration information for the delay be provided. However, in this study comparisons were done for the same stage of service. Our research will examine whether the stage of service influences the impact of the presence or absence of any duration information on the customer’s perception of waiting time.

The purpose of our study will be to determine how the actual duration of the wait, the provision of an explanation for the wait, and the service stage affect the customer’s perception of the wait, and how the perception of the wait affects the service evaluation.

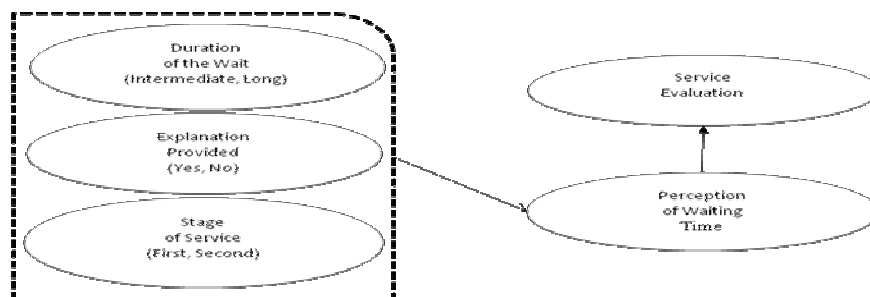


Figure 1 - Conceptual Model

CONCEPTUAL BACKGROUND

Figure 1 is a conceptual model of the constructs being examined in this study. The dashed box encircling the situational factors represents the potential for unique combinations of the underlying levels of the factors to influence the customer's perception of waiting time. The purpose of this research will be to explore how different combinations of the situational factors affect the customer's perception of waiting time and in turn affect service evaluation.

Duration of the wait

Duration of the wait, for the purposes of this study, will be defined as the amount of time that the customer waits for the service provider in a particular stage of the service process when there are no value-added activities occurring related to the service.

Hui and Tse [5] conducted an empirical study varying duration of the wait (short, intermediate, or long) and examining how wait related information (either waiting duration time or queuing reference) influenced the subject's: (1) perception of waiting duration; (2) affective response to the wait; and (3) perception of the acceptability of the wait. Waiting duration information was provided in terms of the amount of waiting time expected while queuing information was provided in terms of the customer's place in the queue. They found that in short waits, no information is needed as customers are likely to experience little stress and consider the wait acceptable. In intermediate waits, providing waiting duration estimates is preferable over queuing information, while queuing information is preferable over waiting duration estimates for long waits [5].

Our research will exclude waits of short duration based upon the expectation that they will have no impact on the customer's perception of waiting time [5]. Intermediate and long durations will be studied through manipulating the duration of the wait in the experimental scenario.

Explanation for the wait

The provision of an explanation will be defined as the presence of communication with the customer regarding the reason for the delay. Maister's fourth proposition indicates that unexplained waits are perceived to be longer than explained waits. Throughout the literature on wait management, there have been a number of experiments that predicted situational factors would have a positive effect on perceived duration; however, there was a significant but opposite effect [13-15].

Antonides, et. al. [16] found that queue information and duration information increased the negative perception of waiting time as the duration of the wait increased. Additionally, based on Antonides et. al.'s research [16], we propose that interrupting the wait time to explain to the customer why they are waiting in an intermediate wait will remind the customer that they are in fact waiting longer than normal. Therefore, in intermediate durations, duration information will have a negative interaction effect on the customer's perception of waiting time.

Proposition 1a: In service waits of intermediate duration, provision of an explanation will have a negative effect on the customer's perception of waiting time as compared to no explanation.

Antonides et. al. did not distinguish between intermediate and long waits. Hui and Tse [5] found that different types of information impacted perceptions of wait differently in intermediate or long waits. We propose that the provision or non-provision of an explanation for the wait will

also be perceived differently in waits of different durations. In long waits, the customer has already become aware that they are waiting longer than normal and the provision of an explanation for the wait will improve the customer's perception of waiting time.

Proposition 1b: In service waits of long duration, providing an explanation for the wait will have a positive effect on the customer's perception of waiting time as compared to no explanation.

Service process stages

Maister's second proposition indicates that people want to get started as soon as possible [8]. Based on this proposition, this study will compare two different stages of the service process and empirically determine if there is a significant difference in the perception of waiting time based upon the stage of the service.

Dube-Rioux, et. al. [12] divide an individual's visit to a restaurant into three phases. The terminology that they utilize is pre-process, in-process and post-process. While these labels help distinguish the different stages of service, utilizing pre-process and post-process in conjunction with the waiting time at the service provider overlooks the parts of the process that exist prior to the customer arriving at the facility and those parts of the process that exist after the customer departs the facility. To eliminate some of the confusion these labels may create, we will assume pre-process indicates time before the customer arrives at the service facility and post-process will indicate time after the customer departs the service facility. In-process will indicate the time that the customer is at the service facility. The in-process stage can then be subdivided and labeled according to the structure Dube-Rioux et. al. [12] utilized.

For example, the first in-process stage can be considered to start with the customer's arrival at the service site and ends upon the customer placing their order. Or, more generally, the first in-process stage starts with the customer's arrival at the service site and ends upon interaction with a service representative. The second in-process stage begins immediately after placing the order and ends once the meal has been consumed. Or, more generally, the second in-process stage begins with the interaction with a service representative and ends upon the completion of the delivery of the service. The third in-process stage begins after the meal has been completed and includes paying the bill and is complete upon exiting the restaurant. Or, more generally, the third in-process stage begins with the completion of the delivery of the service and ends upon exiting the service site. Our research will focus on the first and second in-process stages and ignore any other pre-process or post-process activities as those stages are less likely to be influenced by actions of the service provider.

Dube-Rioux, et. al. [12] conducted two experiments, the first tested the point at which the delay was communicated to the customer and the second tested the "impact of need" state and point of delay. This experiment found that subjects were more upset when the delay occurred before they ordered their meals or after they had asked for the check. In other words, a delay in the second in-process stage was preferred to a delay in the first in-process stage or in the third in-process stage. However, in Durrande-Moreau's [2] review of the service wait literature, conflicting results are present with regards to the impact of process stage on the perceived duration of the waiting time. We will hypothesize that customers will remain consistent in their preference for waiting in the second in-process stage regardless of the duration of the wait.

Proposition 2a: Service waits of an intermediate duration in the second in-process stage of the service encounter will have a positive effect on the customer's perception of waiting time as compared to service waits of an intermediate duration in the first in-process stage of the service encounter.

Proposition 2b: Service waits of a long duration in the second in-process stage of the service encounter will have a positive effect on the customer's perception of waiting time as compared to service waits of a long duration in the first in-process stage of the service encounter.

Hui, Tse and Zhou [17] conducted an empirical study looking at delay reason and its interaction with delay duration information. These authors suggest that when a delay occurs, service providers should provide an estimate of the delay information. Only if an estimate of the delay information is not available should any explanation information for the delay be provided. However, their research comparisons were done consistently for the same stage of service. Our research will examine whether the stage of service influences the impact of providing an explanation for the wait on the customer's perception of waiting time. Contrasting Maister's second proposition (people want to get started as soon as possible) with Maister's fifth proposition (unexplained waits are longer than explained waits), we propose that regardless of whether an explanation for the wait is provided or not, the customer's perception of waiting time will be less if it is in the second in-process stage of service versus the first in-process stage of service.

Proposition 3a: Service waits with an explanation for the wait provided in the second in-process stage of the service encounter will have a positive effect on the customer's perception of waiting time as compared to service waits with an explanation for the wait provided in the first in-process stage of the service encounter.

Proposition 3b: Service waits without an explanation for the wait provided in the second in-process stage of the service encounter will have a positive effect on the customer's perception of waiting time as compared to service waits without an explanation for the wait provided in the first in-process stage of the service encounter.

METHOD

Our research will take the form of a 2x2x2 full factorial design. Wait duration (D) (intermediate or long) will be crossed with provision of an explanation (E) (yes or no) and crossed with the process stage (S) (first in-process stage or second in-process stage). Subjects will be randomly assigned to one of the 8 experimental conditions illustrated in Figure 2. Each of the experimental groups will have a corresponding videotaped scenario. The data will be analyzed using analysis of variance (ANOVA) to contrast the differences among the situational factor main effects on perception of waiting time.

DISCUSSION

A summary review of the experimental literature on wait management revealed that there have been conflicting results regarding the impact of situational variables on the customer's perception of waiting time during the service process [2]. This research attempts to address

those conflicting results by testing the effects on the customer’s perception of waiting time when situational variables (provision of an explanation for the wait, process stage) are manipulated.

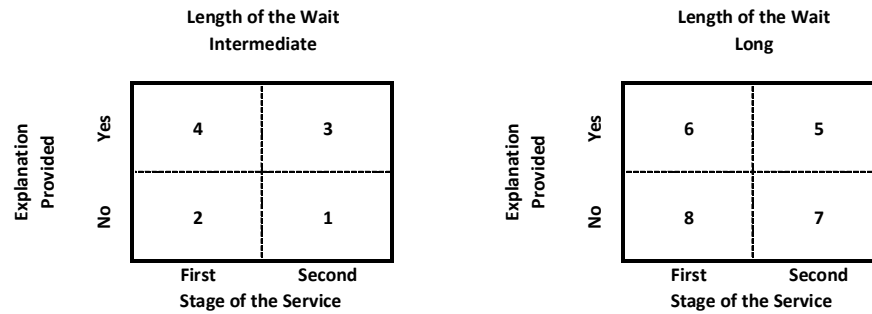


Figure 2 – Experimental Design

One of the more interesting aspects of this research is testing the premise that the customer’s perception of the wait is influenced differently by the presence or absence of an explanation for the wait depending on the length of the wait. In an intermediate wait, the provision of an explanation for the wait is expected to have a negative effect on the customer’s perception of waiting time because we’re reminding the customer that he or she is waiting. While in a long wait, the provision of an explanation for the wait is expected to have a positive effect on the customer’s perception of waiting time. In both long and intermediate durations, our results are expected to show that the perception of waiting time is more favorable when the wait occurs in the second in-process stage versus the first in-process stage regardless of whether an explanation for the wait was provided.

We believe our findings will suggest that the potential exists to positively influence the customer’s perception of waiting time through selective communication of situational variables. When a delay occurs, service providers should attempt to identify and communicate the “right” combination of information for the most favorable reaction from the customer on perceived waiting time and thus on service evaluation. This research continues the identification process of the “right” combination for communication by empirically validating that the absence of an explanation for the wait in intermediate wait durations and the presence of an explanation in long wait durations are the “right” combination in the example tested.

Our study is limited to a student sample and a scenario from one industry setting, thus limiting the generalizability of the results. Further research should be done across other service industries to determine if the relationship between wait duration, provision of an explanation for the wait, and service stage is consistent across industries. Additionally, assuming that wait duration does positively impact the effectiveness of the provision of an explanation for the wait (situational variable) on the customer’s perception of waiting, other situational variables should be tested in a similar manner.

CONCLUSION

In conclusion, we believe that this research contributes to the understanding of how service evaluations are influenced by wait duration, provision of an explanation for the wait and service process stage. During an intermediate wait, explaining the wait to the customer may unnecessarily draw their attention to the duration of the wait and negatively influence the service evaluation.

References available upon request from Teresa Betts at tkbetts@siu.edu.