Atmospherics as a Marketing Tool: The Influence of the Student Union Dining Atmosphere and Service on Students' Attitudes and Actions

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Atmospherics as a Marketing Tool: The Influence of the Student Union Dining

Atmosphere and Service on Students' Attitudes and Actions

By

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Dedicated to the memory of Douglas R. Buglewicz

A patient mentor and friend with unending compassion, enthusiasm, and wit

ABSTRACT

GRAYSON BEAU HUBER: Atmospherics as a Marketing Tool: The Influence of the Student Union Dining Atmosphere and Service on Students' Attitudes and Actions

Atmospherics have been a focus of marketing research for decades following the research of Kotler (1971). Atmospherics research has revolved mostly around retail settings, with some research focusing on dining settings for consumers. Visual, aural, olfactory, and tactile factors of atmospherics have been studied in order to provide the best customer experience. Positive atmospherics also can relate to future buying habits.

This study focuses on the topic of dining atmospherics on a college campus. The purpose of this research was to analyze any changes in students' opinions following the renovation of an on-campus dining option. A survey was available to a selection of students at the University of Mississippi. This survey asked questions pertaining to students' views on various aspects of the Student Union dining area before and after the renovation. This survey pulled information and inspiration from an adapted version of the Mehrabian-Russell model (Liu, 2009).

In general, students viewed many aspects of the Student Union to be improved after the renovation. Positive feelings, negative feelings, positive atmospherics, and facilities all saw improved attitudes from students concerning the updated dining venue. These improved qualities did not result in more positive views of specific food vendors. The behavioral intentions of students for the updated Student Union were significantly positive. Students at least agreed to statements concerning their future patronage, word of mouth, and recommendations. Furthermore, all the defined clusters of this study significantly correlated with behavioral intentions. The qualitative analysis showed that students are enjoying the food vendor options, interior layout, and visual appeal of the renovated Student Union. However, crowding and long lines remain an issue for the Student Union. In a post hoc test, gender of students showed that females are more likely to agree with behavioral intention statements.

In total, the Student Union at the University of Mississippi has improved in the eyes of its students through the process of renovation. Some aspects still need attention and improvement, but the overall evaluation of the Student Union provided positive results.

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Introduction

This thesis research concerns the University of Mississippi Student Union food services experience comparing the New Union Renovation (NUR) to the Old Union (OU). Part of the UM Student Union's dining experience can be enhanced through atmospherics. According to Kotler (1973), atmospherics can be described as "the conscious designing of space to create certain effects in buyers"(p. 50). For the UM Student Union, atmospherics can be of benefit to their marketing efforts. By creating a positive atmosphere, the Student Union can influence students and prospective students' opinions and attitudes. The changes made to the NUR atmosphere can increase sensory appeal through lighting, color, signage (visual), food aroma (olfactory), music (aural), and comfortable space (tactile) (Kotler, 1973).

I. Literature Review

The primary focus of research for this thesis is centered on atmospherics and service. Many who patronize restaurants do so to accomplish a need: they're hungry. Making the choice of where to eat can be influenced by many things. At the University of Mississippi, the choice often is the Student Union as many students are between classes and it is centrally located to buildings on campus. In dining options, the ambience/atmosphere can influence patrons' overall satisfaction with a chosen vendor. Given the fact that the Student Union was built in 1976, and had not seen significant improvements/changes since that time, this research would like to investigate patrons' perceptions and satisfaction with their dining options, service delivery, and restaurant choices on future intention to patronize restaurants in the NUR. The atmosphere in the restaurant and dining/seating areas is part of the overall dining experience. These experiences can be influenced by the scents, lighting, seating, noise, and colors within the setting. Given the NUR, this presents an opportunity to assess patrons' overall feelings about these situational atmospherics and their intention to continue to visit. To do this, first, I need an understanding of what atmospherics are and why they are crucially important. With Kotler's definition in mind, adapting certain atmospherics can be extremely beneficial to marketing efforts of various businesses. By creating a positive atmosphere, businesses can influence customers' attitudes and future actions. The changes made to the atmosphere of a business can be made through various sensory terms. Kotler (1973) also lists groupings of sensory terms used for atmospherics into visual, aural, olfactory, and tactile aspects. The visual aspect refers to what

patrons see in terms of the combination of color and lighting. The atmospherics

aural category consists of both unplanned and planned sounds that consumers

experience in an environment. The olfactory component refers to patrons' sense of

smell in a setting. Finally, the tactile category is the sense of space and crowding that

patrons' experience. I will further explore these topics in the next section.

A. ATMOSPHERICS

i. Visual

The visual category represents what consumers see while inside a business.

This can include colors and lighting choices used in a space. Specifically, color can

influence affective tone and arousal (Babin, 2003). Affective tone refers to how

consumers judge a brand (such as cheap or luxurious). Arousal can be described as

how consumers psychologically respond to certain colors (whether colors make

them feel relaxed, anxious, excited, etc.) Different hues of colors are used to emit

various responses of affective tone and arousal. The two main classifications of

colors are 'cool' and 'warm' colors. Cool colors have short wavelengths and include

blues and violets. On the other end of the spectrum, warm colors have long

wavelengths and include reds and oranges. Research has shown stores that use

cooler colors are typically preferred and receive better emotional responses (Babin,

2003). Lighting also can make a major impact on consumers' perceptions of quality

within a retail setting. Harsh, bright lighting corresponds with lower quality of

product, while softer lighting coincided with higher quality according to consumer

perceptions in an experimental retail setting (Baker, 1994). These visual elements

have been altered with the NUR. There are less colors present, leaving much of the interior to be white. The lighting is also more natural in the NUR due to large windows open to the food area.

ii. Aural

The aural dimension includes any sounds or haptics such as music, talking, the sound of heels, carts, etc. that can affect moods and mood states. Different styles of music and different tempos can have a significant impact on consumers (Michon, 2002). Music also has been proven to have a significant impact on dining settings. Many restaurants put great effort into the selections of music playing in their establishments. Much like the visual component of atmospherics, the aural environment can affect consumers in both positive and negative ways.

Music selections with slower tempos are generally relaxing and increase the time consumers spend at a restaurant as well as their total money spent (Milliman, 1986). More time spent eating means that tables will be occupied for longer periods of time. With tables being occupied for longer amounts of time, this can lead to longer wait times for potential customers walking in the door. However, this appeared to be insignificant in the number of patrons who left before being seated (Milliman, 1986). Noise levels within restaurants play a significant role in the ambient environment, which affects consumers' attitudes and behaviors (Han, 2009).

iii. Olfactory

Olfactory senses refer to the smells that consumers experience in a particular environment. There are three dimensions to how an odor is perceived. First, is its presence in an environment or, oppositely, its absence from an environment. The second factor is the perceived pleasantness of the scent. Third, the congruity of the scent to the situation or environment is the final element to the sense of smell (Bone, 1999). While there is still some debate on how effective olfactory atmospherics are on consumer perceptions, the congruity dimension is probably most important in establishing any effect (Michon, 2005). The NUR has potentially made some improvements in this area. By slightly separating the spaces that each vendor occupies, the scents from each might also be separated. This could be beneficial as it allows customers of a specific vendor to only smell the food they are about to eat. This creates positive congruency among customers' perceptions of the food and smell.

iv. Tactile

Crowding, space, and comfort can fall under this category. People do not want spaces that are too crowded, but an empty space can feel uninviting. This is one aspect of atmospherics that was significantly changed between OU and NUR. The NUR has a more open layout with different seating options. Through this change, the Student Union is attempting to create a more positive sense of atmosphere for consumers.

Another major component of the tactile category is temperature. Han (2009) also refers to temperature as a part of the ambient environment in retail settings.

This ambient environment and the factors within can significantly affect customer satisfaction and loyalty. Within this study I aim to see if tactile components in the NUR are consistent with students' expectations.

v. Facilities

Another potential influencer of consumer or patron attitudes about a restaurant or retailer is the facility. A facility's basic amenities at restaurants, mainly bathrooms, can have a significant influence on diner satisfaction. There is a significant relationship between hygiene of restrooms and diner satisfaction (Lee, 2016). The NUR is providing clean and new restrooms for their customers. The wear and tear that the older bathrooms experienced is gone in favor of brand new facilities including family and ADA options.

In total, these atmospheric components are important because they correspond to patrons' emotional reactions. In turn, emotional responses to the overall environment lead to either positive or negative future behavioral and patronage intentions.

B. BEHAVIORAL INTENTIONS AND CUSTOMER LOYALTY

Measuring consumers' behavioral intentions is the next logical step in the study of atmospherics. The atmosphere and physical evidence are designed to create the ambience that patrons experience when visiting. The ambience and atmosphere created can determine whether patrons return and spread positive

word of mouth. Researchers and marketers want to know the likelihood of returning patronage and positive word of mouth. People have a spectrum of two possible and opposite reactions to an environment: attraction or avoidance (Bitner, 1992). People could strongly avoid or be attracted to their surroundings or have a minor degree of either of these reactions. These two opposite reactions are the base for measuring consumers' likelihood to return to a restaurant in the future. Positive reactions to restaurant environments lead to higher rates of returning patronage and positive word of mouth. Negative reactions lead to fewer returning customers and negative word of mouth. Word of mouth is an extremely important component for marketers to measure. According to Litvin (2008), interpersonal influence and word of mouth are significant in a consumers' decision of where to make a purchase. Therefore, increased likelihood of positive word of mouth translates to more customers and higher sales in the future. By analyzing these two components of behavioral intentions, marketers can visualize what decisions are working positively or negatively.

C. DELIVERY OF SERVICE

A key aspect of restaurant experience is how satisfactory the service and order fulfillment are in comparison to customers' perceptions. Restaurant service can be viewed from two perspectives: mechanical and humanic (Wall, 2007). The mechanical component consists of how functions are carried out. A server's job to take and process an order correctly and in a preferred amount of time is a prime example of mechanical service. Ensuring that the food is in good quality is also the

mechanical responsibility of the employees. Humanic service relates to the interpersonal communication that employees have with customers. Positive interactions influence consumers' perceptions of an establishment. The menu and food options contribute to how consumers view a restaurant. Menu appearance and choices significantly correlate with consumer opinions and attitudes (Lee, 2016).

The NUR has increased its food selections as a whole by adding more variety in vendors. This creates an expanded menu for consumers visiting the Student Union. However, the employees hired may not have varied much from OU to NUR. The ease and correctness of orders at the OU to NUR may not vary much because of this.

Upon investigating the effects of atmospherics and service delivery on future patronage intentions, the idea of studying these effects on a college campus environment became intriguing. The University of Mississippi Student Union renovation posed a great opportunity to see how renovations may help to solve particular issues that students had with the OU.

II. Purpose of Study

I wanted to see how research of atmospherics, service, and behavioral intentions could relate to an on-campus dining atmosphere. When looking at potential sources of study, the Student Union at the University of Mississippi became a feasible option with interesting possibilities. The Student Union has recently been renovated to include a new interior as well as some new food vendors. This renovation allows for some before and after comparisons to be made. Specifically, I was interested in how NUR atmosphere, food options, and service delivery influence students' feelings about their dining experience and behaviors compared with the OU.

Within this analysis, I was interested in whether the NUR is viewed more favorably after the renovation. This comparison aimed to see how atmospherics, emotions, and facilities might be viewed differently. Throughout the research leading into this study, it was clear that atmospherics and service play prominent roles in customer satisfaction and opinion. This study's purpose is to investigate the effects of atmosphere and delivery of service on students' perceptions of the NUR and OU. The study will also test any differences in perceptions of specific vendors between the NUR and OU. Bitner (1992) has also indicated the significance of behavioral intentions as critical to the success of retailers and restaurants. Therefore, this study will capture students' intentions to spread positive word of mouth and revisit. Finally, in order to develop a deeper understanding of student opinions, I want to use qualitative data analysis. By combining quantitative and

qualitative data analytics, this study will test these factors of atmospherics and

service at the University of Mississippi Student Union.

III. Research Objectives

Based on the literature researched and the established purpose of this research, six objectives have been identified.

Research Objective 1: Atmospherics influence in NUR vs. OU

Through the clusters of atmospherics, positive feelings, and negative feelings, I aim to gauge students' perceptions of the NUR and OU food court area. This includes analysis of the visual, aural, olfactory, and tactile components of atmospherics as well as the general facility provided at the NUR and OU.

Research Objective 2: Service Delivery at the NUR vs. OU

This objective refers to the lines and speed of service delivery that patrons experience at the food court. I am interested in finding any potential difference in how students perceive service delivery at the NUR vs. OU.

Research Objective 3: Traffic at NUR vs. OU

Traffic represents the physical evidence of our objectives related to the traffic at both the NUR and OU. I want to know whether there are larger crowds in the NUR or OU, and how these crowds affect students' attitudes.

Research Objective 4: Evaluate food service options and choices at NUR vs. OU

This section of the objectives compares vendors at both the NUR and OU. By comparing students' attitudes of the same vendors across NUR and OU, I can identify any potential variance.

Research Objective 5: Future Patronage Intentions at NUR

One key objective in order to gauge the success of the NUR is the future patronage intentions of students. This identifies how well the renovations to the Student Union have improved future actions by the students.

Research Objective 6: Qualitative Analysis: Student comments on feelings about NUR vs. OU

Students' opinions about what they do and do not like about the NUR and OU are incredibly valuable. Analyzing commonalities in responses is an important step in planning future improvements to the NUR.

IV. Methodology

To answer research objectives about atmospherics, service delivery, facilities, and behavioral intentions with food vendors as well as the Student Union in general, I used prior survey questions related to dining atmospherics. The components of the dining atmospheric questions were based on the works of an extended Mehrabian-Russell model (Liu, 2009). This research adapted the existing Mehrabian-Russell model to be used to measure dining atmospherics in Chinese restaurants. The basic structure of the survey used specific Likert scale items (scale points: 1=extremely disagree to 7=extremely agree) to determine the degree to which respondents agreed/disagreed with various statements. In order to identify atmospherics about specific food vendors, respondents were asked to check which restaurants they had visited as well as their most frequently visited vendor. Respondents were then directed to answer questions about their most frequently visited vendor. Then, questions pertaining to their feelings regarding visual, aural, olfactory, and tactile atmospherics, service delivery, and facilities were asked about both the NUR and OU. Behavioral intentions in terms of future patronage intentions were asked for the NUR. Open-ended qualitative questions were added to allow respondents an opportunity to express any further opinions about the Student Union. See appendix for survey questionnaire.

V. Study Protocol

After developing the questionnaire, it was submitted and approved by the Institutional Review Board at the University of Mississippi. The questionnaire was then processed and administered via Qualtrics, on the SONA Systems program open to students in introductory and upper level general business and marketing courses for extra credit. It was administered over the course of two and a half weeks (November 15th until December 2nd, 2017). Upon completion, the survey sample consisted of 230 total responses from students. Editing the response yielded a sample size of 195. Respondents were dropped due to not fully completing surveys, failing to meet required screening questions.

VI. Sample Characteristics

The sample consisted of 126 females (64.6%) and 69 males (35.4). Student respondents were all at least sophomore classification. There were 7 sophomores (3.6%), 159 juniors (81.5%), and 29 seniors (14.9%). I also analyzed the characteristics of our sample in terms of their major area of study. In this study, there were 7 liberal arts majors (3.6%), 3 health/science majors (1.5%), 146 business majors (74.9%), 2 applied sciences majors (1%), 5 nutrition/hospitality majors (2.6%), 22 accounting majors (11.3%), 7 engineering majors (3.6%), and 3 journalism majors (1.5%).

VII. Analysis of Data

After receiving and editing respondents' submissions through Qualtrics, data were exported into SPSS. SPSS is the statistical analysis tool that was used for this study. Within this program, specific tests were run to analyze the data set. In order to determine significant categories of atmospherics and service, an exploratory factor analysis test was performed. This resulted in a list of questions with similar factor loadings, which were then grouped together. Through this factor analysis, six separate clusters of survey questions were determined to have corresponding communalities. The factor analysis supported the following dimensions with this study: atmospherics in terms of the arousal state with sight and sound with positive versus negative feelings, service delivery, tactile with seating, and traffic and can be seen in Tables 1 and 2 (See Tables 8 and 9 in Appendices for Total Factor Analysis). To determine the validity of each cluster, a Chronbach's Alpha test was performed. All alpha values are 0.7 or higher indicating sufficient reliability for the cluster. To determine whether the NUR affected patrons' arousal states, choice options, paired sample t-tests compared the NUR to OU on the identified clusters. Finally, correlation analysis was used to see if there were relationships between varying factors.

Table 1 - NUR Factor Loadings	Factor Loadings	Mean	Std. Deviation
Negative Feelings			
Chronbach's Alpha = 0.915			
At the New Union, I feel... - Irritated	0.844	3.15	1.497
At the New Union, I feel... - Disappointed	0.843	2.76	1.41
At the New Union, I feel... - Displeased	0.842	2.72	1.373
At the New Union, I feel... - Angry	0.738	2.46	1.352
Positive Atmospherics			
Chronbach's Alpha = 0.871			
The colors are warm and inviting	0.821	5.85	0.901
The lighting is warm and inviting	0.820	5.42	1.138
It creates a pleasant atmosphere	0.765	5.6	0.997
It is visually appealing	0.657	5.49	1.095
The music is pleasant	0.599	4.69	1.259
Traffic			
Chronbach's Alpha = 0.875			
I can easily navigate the space	0.786	5.73	1.07
It is easy to get around	0.776	5.57	1.144
Navigating through the New Union's space is easy	0.669	5.38	1.18
Service Delivery			
Chronbach's Alpha = 0.783			
[Chosen Vendor] lines are short to place an order	0.745	5.53	1.441
[Chosen Vendor] processes my transaction quickly	0.681	3.96	1.642
[Chosen Vendor] employees process my transaction quickly	0.680	5.41	1.349
[Chosen Vendor] has an efficient layout	0.567	5.43	1.247
Positive Feelings			
Chronbach's Alpha = 0.872			
At the New Union, I feel... - Delighted	0.688	5.67	0.966
At the New Union, I feel... - Relaxed	0.668	5.09	1.211
At the New Union, I feel... - Pleased	0.649	5.46	1.071
At the New Union, I feel... - Excited	0.648	5.04	1.255
At the New Union, I feel... - Comfortable	0.619	4.79	1.222
Facilities			
Chronbach's Alpha = 0.768			
The New Union's restrooms are clean	0.723	5.53	1.159
New Union's restroom area clearly marked for ADA accessibility.	0.710	5.14	1.3
The New Union's restrooms are easily accessible	0.692	5.17	1.183

Table 2 - OU Factor Loadings

	Factor Loadings	Mean	Std. Deviation
Negative Feelings			
Chronbach's Alpha = 0.906			
At the old Union, I felt... - Disappointed	0.852	3.63	1.431
At the old Union, I felt... - Angry	0.832	3.58	1.376
At the old Union, I felt... - Displeased	0.810	3.54	1.404
At the old Union, I felt... - Irrritated	0.791	3.02	1.399
Positive Atmospherics			
Chronbach's Alpha = 0.908			
The old union's colors were warm and inviting	0.879	3.59	1.707
The old union was visually appealing	0.789	4.04	1.646
The old union's lighting was warm and inviting	0.784	4.56	1.407
The old union created a pleasant atmosphere	0.770	4.36	1.469
The music was pleasant in the old union	0.540	4.43	1.243
Traffic			
Chronbach's Alpha = 0.857			
I could easily navigate the old Union space	0.778	5.31	1.255
It was easy to get around the old union	0.759	5.15	1.327
Navigating through the Old Union's space was easy	0.607	4.9	1.339
Service Delivery			
Chronbach's Alpha = 0.782			
[Chosen Vendor] processed my transaction quickly	0.816	5.63	1.12
[Chosen Vendor] employees processed my transaction quickly	0.812	3.91	1.881
[Chosen Vendor] lines were short to place an order	0.636	5.38	1.285
[Chosen Vendor] had an efficient layout	0.578	5.05	1.614
Positive Feelings			
Chronbach's Alpha = 0.876			
At the old Union, I felt... - Excited	0.743	4.76	1.272
At the old Union, I felt... - Delighted	0.723	4.19	1.317
At the old Union, I felt... - Pleased	0.722	4.81	1.28
At the old Union, I felt... - Comfortable	0.718	4.29	1.228
At the old Union, I felt... - Relaxed	0.652	4.22	1.263
Facilities			
Chronbach's Alpha = 0.814			
The Old Union's restrooms were easily accessible	0.794	4.53	1.458
The old union had restrooms that were ADA accessible.	0.735	5.03	1.327
The Old Union's restrooms were clean	0.704	4.93	1.142

VIII. Results

Quantitative Analysis

Research Objective 1: Atmospherics influence in NUR vs. OU

The first cluster, positive feelings, consists of five survey questions, which asked the degree to which they felt: delighted, relaxed, pleased, excited, and comfortable. This directly corresponds with previous studies that measured patrons' levels of emotional response to visual atmospherics. I took the average of the combination of these responses to create a new measure of positive feelings for both the NUR and OU. Students have more positive feelings about the NUR in comparison to the OU (M_{New} = 5.21, M_{Old} = 4.46, t=9.85, p< .05). (See Table 3)

Next, I clustered questions regarding negative feelings towards the NUR and OU. This cluster involved the degree to which students felt: angry, displeased, disappointed, and irritated at either NUR or OU. Students reported having more negative feelings at the OU than the NUR (M_{New} = 2.77, M_{old} = 3.44, t=6.72, p< .05). (See Table 3)

The third cluster I studied focused on the positive atmospherics of the NUR and OU. This cluster consisted of six questions about: how warm and inviting the colors and lighting were, how visually appealing it was, whether the Student Union

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created a pleasant atmosphere, and how pleasant the music was. With these six

questions, I found that the NUR created a more positive atmosphere than the OU

(M_{New} = 5.41, M_{old} = 4.20, t=11.47, p< .05). (See Table 3)

Lastly, the general facilities were compared using questions focused on how

clean and accessible restrooms were and how clearly marked facilities were for

ADA. Students viewed the NUR as superior in these aspects in comparison to the OU

(M_{New} = 5.28, M_{old} = 4.83, t=4.69, p< .05). (See Table 3)

Research Objective 2: Service Delivery at the NUR vs. OU

The service delivery cluster mainly referred to the speed and efficiency that

food vendors at the Student Union perform. There are some differences between the

flow of service at the NUR vs. the OU. Each vendor in the NUR has a slightly more

defined space compared to the OU. Also, several vendors now have multiple points

for payment, which can speed up the lines. However, this was the only cluster that

yielded results that were insignificant. I found no significant difference in student

responses to NUR and OU's delivery of order (M_{New} = 5.08, M_{old} = 4.99, t= .976, p=

.38). (See Table 3)

Research Objective 3: Traffic at NUR vs. OU

Traffic was another significant cluster within responses to both the NUR and

OU. In this situation, questions about traffic in the Student Union concerned how

easily students can navigate the space and how easy it is to get around. The NUR

proved to have more favorable facilities scores than the OU in students' opinions (M_{New} = 5.56, M_{old} = 5.12, t=4.32, p< .05). (See Table 3)

Table 3 - NUR vs. OU Clusters

		Mean	N	Std. Deviation	Paired Difference Mean	t	df	Sig. (2-tailed)
Pair 1	NUR Pos. Feelings	5.2123	195	0.93558	0.75692	9.852	194	0.00**
	OU Pos. Feelings	4.4554	195	1.03993				
Pair 2	NUR Neg. Feelings	2.7718	195	1.25713	-0.67179	-6.72	194	0.00**
	OU Neg. Feelings	3.4436	195	1.23888				
Pair 3	NUR Pos. Atmospherics	5.4082	195	0.88162	1.21231	11.469	194	0.00**
	OU Pos. Atmospherics	4.1959	195	1.28528				
Pair 4	NUR Service Delivery	5.0821	195	1.11008	0.08846	0.876	194	0.382
	OU Service Delivery	4.9936	195	1.16997				
Pair 5	NUR Traffic	5.5624	195	1.01306	0.44274	4.324	194	0.00**
	OU Traffic	5.1197	195	1.15293				
Pair 6	NUR Facilities	5.2803	195	1.00459	0.44957	4.678	194	0.00**
	OU Facilities	4.8308	195	1.12321				
** is significant at the 0.01 level (2-tailed)								
* is significant at the 0.05 level (2-tailed)								

Research Objective 4: Evaluate food service options and choices at NUR vs. OU

One goal of this research was to compare similar restaurant vendors from both the post-renovation and pre-renovation Student Unions. There were three vendors that continued from the OU and NUR: Qdoba, Chick-fil-A, and Panda Express. Even though Subway ceased residence in the Student Union, Which Wich has taken their place as a sandwich vendor. By combining the survey questions specific to vendors, I created new variables according to these new and old vendors in order to run paired sample t-tests. I will use the next section to discuss these differences over time for vendors.

There were no significant differences in response scores between the NUR and OU versions of Qdoba (M_{New} = 5.25, M_{old} = 5.07, t= .47, p= .65) and Panda Express (M_{New} = 5.28, M_{old} = 5.23, t=.41, p=.69). The difference between NUR and OU versions of Chick-fil-A is somewhat significant (M_{New} = 5.51, M_{old} =5.11, t=1.90, p=

.065). In comparing Subway and Which Wich, I must accept that responses are not for the same brand or exact service. However, it may still be helpful to compare these as they fulfill similar service to students and customers. Even when comparing the two different vendors, there was little scoring difference between the two (M_{Which} = 5.20, M_{Subway} = 4.78, t= 1.27, p= .22). (See Table 4)

Table 4 - NUR vs. OU Food Vendors

		Mean	N	Std. Deviation	Paired Difference Mean	t	df	Sig. (2-tailed)
Pair 1	NUR Qdoba	5.25	11	0.9083	0.18182	0.469	10	0.649
	OU Qdoba	5.0682	11	1.37882				
Pair 2	NUR Chick-fil-A	5.5066	38	0.96648	0.39474	1.902	37	0.065
	OU Chick-fil-A	5.1118	38	1.27832				
Pair 3	NUR Panda Express	5.275	10	0.87758	0.05	0.408	9	0.693
	OU Panda Express	5.225	10	0.84533				
Pair 4	NUR Which Wich	5.2031	16	0.81761	0.42188	1.273	15	0.222
	OU Subway	4.7813	16	1.34436				

** is significant at the 0.01 level (2-tailed)
* is significant at the 0.05 level (2-tailed)

Research Objective 5: Future Patronage Intentions at NUR

Three survey questions focused on future behavioral intentions of students. These questions focused on intentions to return to a specific vendor, to recommend a specific vendor, and to say positive things about a specific vendor. I wanted to see if students would at least say that they agreed (test value=6) with these statements. I found that students agreed that they would return in the future (M_{Return} = 6.34, t=6.37, p< .05), that they would recommend the vendor to their friends ($M_{Recommend}$ = 6.17, t=2.70, p< .05), and that they would say positive things about the vendor to their friends ($M_{Positive}$ = 6.16, t=2.36, p< .05). These findings mean that students' overall evaluations are positive which leads to positive word of mouth and loyalty to vendors. (See Table 5)

I also was interested in seeing the degree to which behavioral intentions correspond with the various clusters. The three behavioral intention questions were combined to create one behavioral intentions variable to be used for testing. I found that each of the six clusters have significant correlation with the behavioral intentions variable. The strongest correlation was between behavioral intention and delivery of order (r= .49, p< .05). Next was the correlation between behavioral intentions and positive feelings (r= .44, p< .05). After the top two correlations were the relationships between behavioral intention and: traffic (r= .39, p< .05), positive atmospherics (r= .34, p< .05), negative feelings (r=-.34, p< .05), and facilities (r= .31, p< .05). The negative feelings cluster was the only category to have an inverse relationship with behavioral intentions, as expected. (See Table 6)

After the correlation analysis was performed, I was curious to figure out which clusters affected patrons' behavioral intentions the most. In order to research this, a regression analysis was performed with the behavioral intentions against each of the six NUR clusters. This test differentiated which of the six clusters impact consumers' future behavioral intentions. Only two of the six factors were determined to be significant predictors of behavioral intention scores. The first significant cluster is NUR negative feelings. It was the only cluster with a negative coefficient. A negative coefficient in this category actually bodes well for the NUR. A negative coefficient indicates that patrons who have less negative feelings have stronger behavioral intentions. The other significant factor was NUR delivery of service. This indicates that higher service delivery scores more strongly predict

behavioral intentions. NUR facilities cluster was the only other somewhat significant

grouping (p= .07). (See Table 7)

Table 5 - Individual Behavioral Intentions

	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)
I would like to come back to [Chosen Vendor] in the future	195	6.34	0.753	6.372	194	0.00**
I would recommend [Chosen Vendor] to my friends	195	6.17	0.903	2.697	194	0.008**
I would say positive things about [Chosen Vendor] to my friends	195	6.16	0.942	2.357	194	0.019*
** is significant at the 0.01 level (2-tailed)						
* is significant at the 0.05 level (2-tailed)						

Table 6 - Behavioral Intention Correlations with NUR Clusters

		NUR Behavioral Intentions
NUR Neg. Feelings	Pearson Correlation	-0.337
	Sig. (2-tailed)	0.00**
	N	195
NUR Pos. Atmospherics	Pearson Correlation	0.342
	Sig. (2-tailed)	0.00**
	N	195
NUR Traffic	Pearson Correlation	0.39
	Sig. (2-tailed)	0.00**
	N	195
NUR Service Delivery	Pearson Correlation	0.487
	Sig. (2-tailed)	0.00**
	N	195
NUR Pos. Feelings	Pearson Correlation	0.441
	Sig. (2-tailed)	0.00**
	N	195
NUR Facilities	Pearson Correlation	0.309
	Sig. (2-tailed)	0.00**
	N	195
** is significant at the 0.01 level (2-tailed)		
* is significant at the 0.05 level (2-tailed)		

Table 7 - Behavioral Intentions Regression Analysis

Coefficients							
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	3.798	0.434			8.76	0
	New Union Neg. Feelings	-0.118	0.041	-0.181		-2.839	0.005**
	New Union Positive Atm	0.011	0.07	0.012		0.157	0.875
	New Union Traffic	0.08	0.063	0.1		1.272	0.205
	New Union Delivery	0.259	0.05	0.352		5.147	0.00**
	New Union Positive Feelings	0.078	0.073	0.089		1.06	0.29
	New Union Facilities	0.1	0.055	0.123		1.812	0.072
Dependent Variable: New Union Behavioral Intentions							
** is significant at the 0.01 level (2-tailed)							
* is significant at the 0.05 level (2-tailed)							

Quantitative Analysis Summary

The survey results answer many of our research objectives. Through this analysis I found significant improvement in students' opinions about the NUR. Behavioral intentions scores were overall significant and positive. Furthermore, behavioral intention scores significantly corresponded with the majority of atmospheric components. While there was no significant correlation between negative feelings and behavioral intentions, this isn't a bad thing. If students had any negative feelings, the feelings were not significantly impacting their future behaviors. There was not much evidence to support increased positive opinions about specific vendors. Only Chick-fil-A saw an increase in scores. The NUR can use this information to make future plans and improvements to the food court area.

Qualitative Analysis

The research also sought students' comments and opinions about the feelings and attitudes towards both the NUR and OU. The open-ended questions asked what students liked or disliked about the NUR and OU. To analyze this data, common

25

categories were created after reading through all of the responses. Once categories were established, responses were sorted into one or more of these categories. Each open-ended question required a response in order for a student to continue on through the survey. Therefore, there are still 195 total responses for each of the qualitative questions.

Research Objective 6: Qualitative Analysis: Student comments on feelings about NUR vs. OU

NUR vs. OU: Student Likes

I will start with the OU. Subway was the most common response to what students liked about the OU (56/195 respondents). This is an interesting statistic to examine in comparison to the Which Wich substitute that was placed in the Student Union post-renovation. While it was clear in the qualitative discussion that students were fond of the Subway, this was not necessarily true in the quantitative analysis. Previously, in a paired samples t-test, I saw that there was no meaningful difference in score between Subway and Which Wich. Perhaps nostalgia plays a factor in the frequent response favoring Subway. Only a few respondents elaborated on their affection for Subway. Both noted that it was a healthier option than what the current vendors offer. However, I was unable to fully understand what made Subway such a popular choice in this section of the survey.

With the Subway response as an exception, I can use the rest of the qualitative data regarding the OU to gauge what students really did enjoy or dislike.

The next two most popular answers in the favorable response category were the

lounge area (23/195 comments) and the seating in general (19/195 comments) in

the OU. The lounge area is not as easily comparable from NUR to OU. This is mainly

due to the unfinished area of the NUR. While I can't compare the two in this area,

this data can be taken into account when planning the upcoming sections of the

Student Union. The seating is something to take note of for future plans as well. Out

of the positive comments about seating, many were specific to the booths in the OU.

While it may not be feasible to remodel after such a short span in the NUR, it can be

viewed as a goal to work towards. (See Graph 1)

Other notable, positive comments discussed how it was beneficial to have a

bookstore in the Student Union on campus (9/195). Others noted how the OU felt

"home-y" and had a sense of comfort (8/195 comments). One significant group of

respondents said they had nothing they liked about the OU (14/195 comments).

Having this many students not be able to name one thing they enjoyed about the OU

is certainly concerning, and proves a fair motivation for the renovation. This leads

us to ask whether students have more positive things to say about the NUR. (See

Graph 1)

Looking at the NUR, it is obvious that there are some new qualities that

students have been impressed by. Most notably, the vendor options (89/195

comments) have been seen as a major upside. This is quite impressive that nearly

half of the respondents all indicated a positive feeling towards the updated list of

vendors. The next two most popular comments in terms of what students like about

the NUR are the improved look (33/195 comments) and layout (31/195 comments).

When comparing to the dislikes that students had about the OU, this is encouraging to see that some of the most prevalent negatives from the OU were moved into the positive category for the NUR. The renovation succeeded in promoting a fresh look, and many of the comments in regards to the look and layout mentioned how modern and open the space felt. Some also indicated that they admired the large windows that allow natural light to flood the space. Seating was another somewhat popular comment (12/195 comments). The amount of positive comments about seating decreased somewhat from the OU to the NUR, but not by much. (See Graph 2)

Graph 1 - OU Likes

Bar chart showing OU Likes counts by category: Nothing (~14), Food Options (~15), Subway (~56), Seating (~19), Layout (~16), Bookstore (~9), Lounge (~23), Comfort (~8), Less Crowded (~6), Fully Open (~9).

Graph 2 - NUR Likes

A bar chart titled "Graph 2 - NUR Likes" with a vertical axis from 0 to 100 (in increments of 10) and the following categories and approximate values:

- Choices: ~89
- Better Look: ~33
- Layout: ~31
- Seating: ~12
- Food: ~10
- Nicer than Old Union: ~8
- Clean: ~7

NUR vs. OU: Student Dislikes

There were three main categories of responses about what students did not like about the OU. The three top scoring categories reflected views that the OU was: crowded (41/195 comments), outdated (32/195 comments), and dirty or gross (27/195 comments). These are all fairly understandable and expected to a certain degree. Considering the building was roughly 40 years old, it had experienced some wear and tear. Of course, it had been modified and renovated in smaller ways throughout the following years, but the initial structure surely created an environment that students came to view as crowded, outdated, and dirty. Two other significant categories of students said that the OU was visually unappealing (17/195

comments) and had a poor layout (17/195 comments). These both were factors

most likely due to the age of the building, which lends more reason for a major

renovation. The total enrollment at the University of Mississippi has nearly doubled

since the original Student Union was built ("Office of Institutional Research,

Effectiveness, and Planning", 2017). (See Graph 3)

By analyzing students' comments about what they dislike about the NUR, I

can see whether certain aspects of the OU really were improved. Unfortunately, two

categories were extremely prominent. First, over a fifth of respondents said that

long lines were a major issue in the NUR (43/195 comments). The number of

complaints about lines at the NUR outnumbers those of the OU. However, this could

simply be because there was a narrower array of potential complaints about the

NUR. The quantitative analysis further proves that students do not believe that lines

are better at the NUR. In that particular test, there was no significant difference

between NUR and OU. In addition, many pointed out the NUR being extremely

crowded (36/195 comments). While these two answer categories could be seen as

an expected result with the opening of a new food outlet on campus, there are some

measures that could be taken to improve this. In regards to complaints about long

lines, many of course were frustrated by the wait time, but they were also upset

with the structure of the lines. At the Student Union, there currently is very little

structure or direction for students to form lines at vendors. One student even said,

"the lines kind of get confusing" at a few of the vendors. This added stressor is one

that could be worked towards being eliminated by administration. By adding roped

off areas for lines to develop at peak hours, much of this confusion could be

eliminated. In addition, this could eliminate some of the crowded and cluttered feelings from the eating space. (See Graph 4)

While those factors may have potential solutions, some common responses cannot simply be solved through line ropes. For example, students said that they disliked the NUR being unfinished (28/195 comments). While this is an understandable frustration, it does not indicate any actionable information for administration to use. Similarly, many students noted frustrations with navigation both inside and outside of the NUR (10/195 comments). This is also due in large part to the construction activity in the opposite half of the Student Union, which affects students' routes around the building. Some students also said that they had no dislikes about the NUR (10/195 comments). While this isn't an incredibly significant portion of students, it is good to see that there are a few that are that satisfied with the NUR. (See Graph 4)

Some other comments worth taking note include students: wanting more food options (11/195 comments), being unhappy there isn't a Subway (8 comments), and being unsatisfied with Student Union employees (8/195 comments). Students also indicated displeasure with the temperature (6/195 comments) and the cleanliness of the Student Union (6/195 comments). (See Graph 4)

These qualitative measures are important to discuss and analyze because they hold the real opinions of students. Using this information, administration can determine future plans that students will truly enjoy.

Graph 3 - OU Dislikes

Bar chart showing OU Dislikes (y-axis 0 to 45):
- Outdated/Old: 32
- Poor Appearance: 17
- Dirty/Gross: 27
- Nothing: 10
- Lines: 14
- Seating: 10
- Crowded: 41
- Layout: 17
- Small: 8
- Noise: 6

Graph 4 - NUR Dislikes

Bar chart showing NUR Dislikes (y-axis 0 to 50):
- Still Under Construction: 28
- Long Lines: 43
- Nothing: 10
- No Subway: 8
- Dirty: 6
- Temperature: 6
- Crowded: 36
- Want more options: 11
- Bland Interior: 5
- Unfriendly Staff: 8
- Navigation: 10
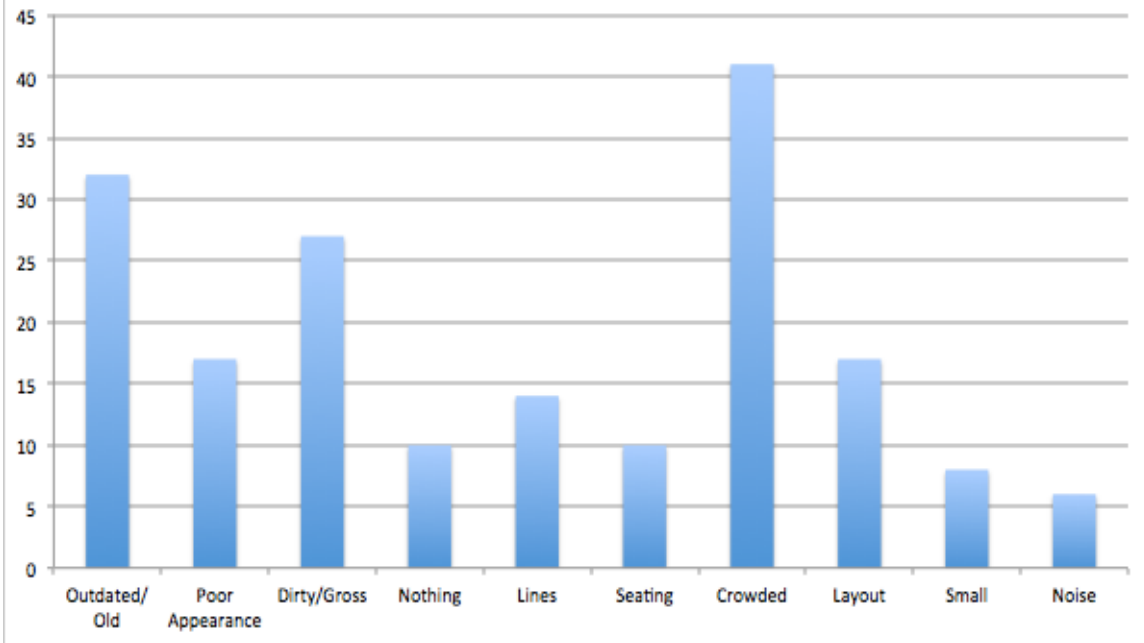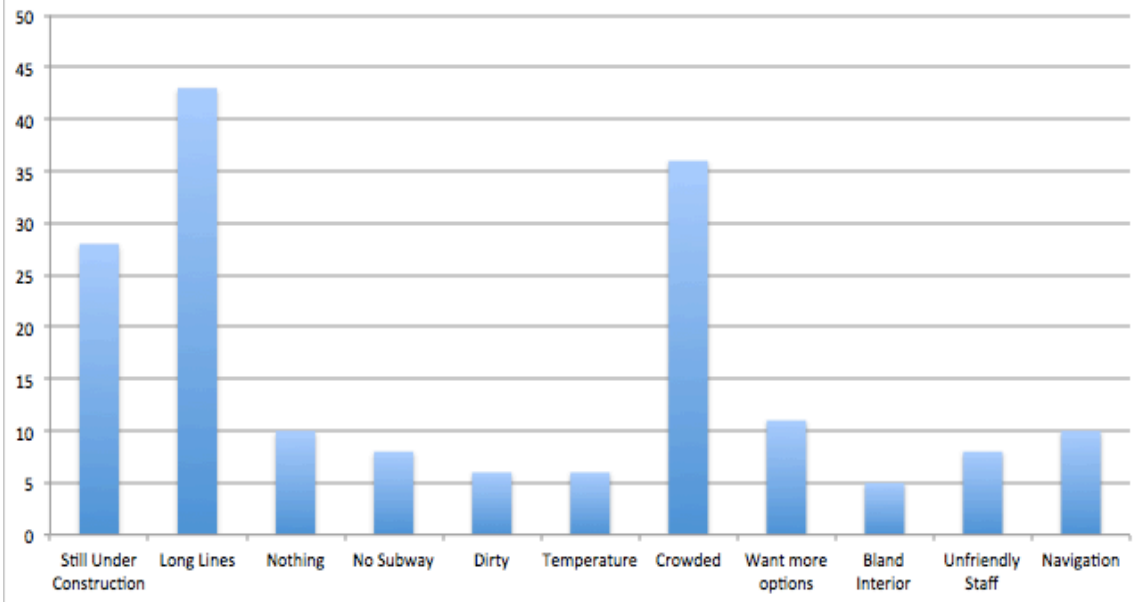
IX. Post Hoc Tests and Analysis

Given the results on atmosphere comparing the NUR to OU, the question of those patronizing the NUR vs. the OU might have differing perceptions whether they were male or female. To answer this I analyzed responses from men and women in terms of atmospherics perceptions. A study by Lee in 2016 found that men and women differ in terms of how atmospherics affect attitudes and perceptions. Females and males had significant differences of scores for multiple categories that included questions regarding visual appearance, seating, music, and menu (Lee, 2016). The one factor in Lee's study that resulted in no significant difference was hygiene purity.

I tested post hoc whether these differed for the all clusters in the NUR and OU. There was only one OU cluster, OU facilities, which yielded significant differences when comparing males and females. The NUR only saw differences in male and females when it came to behavioral intention scores. These questions were not included for the OU as that option is no longer available. The majority of other clusters saw little difference between genders. Among those that had no difference were: NUR negative feelings (p=1.00), OU negative feelings (p=.92), NUR positive atmospherics (p=.35), OU positive atmospherics (p=.99), NUR traffic (p=.21), OU traffic (p=.54), NUR delivery (p=.81), OU delivery (p=.38), NUR positive feelings (p=.63), OU positive feelings (p=.40), and NUR facilities (p=.52). The final two clusters resulted in significant differences in opinion between males and females: OU facilities (p< .05) and NUR behavioral intentions (p< .05). This indicates that males had a more favorable opinion than females had about the facilities at the

OU. However, both of these scores increased from OU facilities to NUR facilities indicating that this difference is no longer present. The difference in behavioral intentions shows that females are more likely than males to revisit, recommend, and say positive things about the NUR (See Table 7). It is worth noting that the two sample groups in this test are not of equal size. Because the female sample was nearly twice as big as the male sample, the results may be partially skewed.

Table 8 - NUR and OU Gender Differences	Gender:	N	Mean	Std. Deviation	t	df	Sig. (2-tailed)	Mean Difference
NUR Neg. Feelings	Male	69	2.7717	1.16847	0	193	1	-0.00009
	Female	126	2.7718	1.30768				
OU Neg. Feelings	Male	69	3.4312	1.25944	-0.103	193	0.918	-0.01924
	Female	126	3.4504	1.23249				
NUR Positive Atmospherics	Male	69	5.3275	0.8677	-0.945	193	0.346	-0.12484
	Female	126	5.4524	0.88947				
OU Positive Atmospherics	Male	69	4.1971	1.31305	0.01	193	0.992	0.00186
	Female	126	4.1952	1.27511				
NUR Traffic	Male	69	5.4396	1.10479	-1.254	193	0.211	-0.19002
	Female	126	5.6296	0.95705				
OU Traffic	Male	69	5.1884	1.2025	0.615	193	0.539	0.1064
	Female	126	5.082	1.12798				
NUR Service Delivery	Male	69	5.1087	1.14603	0.247	193	0.805	0.04124
	Female	126	5.0675	1.09426				
OU Service Delivery	Male	69	5.0942	1.26324	0.888	193	0.376	0.15571
	Female	126	4.9385	1.117				
NUR Pos. Feelings	Male	69	5.1681	0.9441	-0.487	193	0.627	-0.06839
	Female	126	5.2365	0.93378				
OU Pos. Feelings	Male	69	4.371	1.0439	-0.838	193	0.403	-0.13057
	Female	126	4.5016	1.039				
NUR Facilities	Male	69	5.2174	0.97489	-0.647	193	0.519	-0.09742
	Female	126	5.3148	1.02268				
OU Facilities	Male	69	5.0821	0.95897	2.339	193	0.02*	0.389
	Female	126	4.6931	1.18479				
NUR Behavioral Intentions	Male	69	5.9614	1.02188	-3.439	193	0.001**	-0.40902
	Female	126	6.3704	0.63697				
** is significant at the 0.01 level (2-tailed								
* is significant at the 0.05 level (2-tailed)								

X. Implications for NUR and Moving Forward

This study has shown that the renovation of the Student Union has brought an overall improvement in students' opinions and actions. Higher scores for visual, aural, and tactile atmospherics correspond with improved feelings and future patronage intentions. These quantitative results combined with the qualitative data observed prove that students enjoy the updated and new atmosphere that the NUR presents. Complaints were present for both the NUR and OU, but overall the complaints regarding controllable issues declined.

It is worth noting that other dining options have become available on campus, as the size of the university has grown. The Pavilion is a new option that offers two vendors, and the Rebel Market has also been renovated recently. These two options can alleviate the crowd levels at the NUR. As the university begins to expand its south side of campus, the Pavilion in particular could attract larger crowds. By dispersing crowds, the wait times at all dining locations could be shorter.

XI. Limitations of the Study

There are several limitations that coincide with this study. First, comparing the NUR and OU has some inevitable issues. While the NUR is still under construction for certain support services (bookstore, offices, meeting space, etc.), the food court area is open. Also, while navigating in terms of the limited entrance points can be a hassle, they do all lead directly into the food court area. In addition, the purpose of this survey is to measure the various elements of atmospherics in the food court area of the Student Union. Isolating current factors within the NUR was the best way to stray from issues regarding the building not being completely finished. However, there are still issues that cannot be completely eliminated. For example, many students in the qualitative section of the survey noted that they did not like that the NUR was not finished. These responses may have thrown off proportions to be compared with the OU. Had the NUR been complete, more meaningful information could have been received. This limitation would also be very difficult to overcome due to the timeline of renovation on the Student Union. In order for a student to be considered for this survey, they must have visited the Student Union both prior and post renovation. If I was to wait for the Student Union to be fully completed, there may not be a suitable sample of students who had still visited the OU.

There are also degrees of impact and data limitations with our study. By focusing on a certain range of students who have attended the Student Union prior and post renovation, I have restricted our population to a small number in comparison to the total university population. Our sample size of 195 is also

somewhat small in the greater scope of the university. This limits the certainty of any findings that I may have found throughout the course of this study. The impact limitation could be viewed as an issue regarding the generalizability of this study. The demographics of students in this survey do not completely and accurately portray the campus population. By only using business classes to gain responses, students of other majors are made to be a minority. This study was particularly designed to meet the information needs to better serve students' needs at the University of Mississippi. However, there is still information present in this data that could be used for other on-campus dining venues across the country.

Conclusion

Moving forward, more research can be done to frequently measure students' attitudes and perceptions of the Student Union. I would suggest a longitudinal study be carried out to see how responses may change after the rest of the Student Union is completed. This type of survey can also be adapted for other dining options on campus such as the Rebel Market and Pavilion. All options on campus should reflect a positive environment on the University of Mississippi campus. Future surveys for the Student Union (or any other dining options) could include pictures of different layouts and color schemes in order to gauge students' attitudes before renovations.

After completing this process, there are a few aspects of the study that may have been of interest but were not included in this particular survey. First, questions regarding students' opinions about the prices at various vendors would have been beneficial. Also, asking how the Student Union as a whole compares to other dining options on campus could have yielded significant information. Once again, an analysis of these perceptions after the Student Union is fully open would also be a beneficial topic of research moving forward.

This study carries significance for the future development of the Student Union at the University of Mississippi. Several areas were analyzed, and data has revealed how students view updates to the Student Union. Overall, students have proven to view most atmospheric qualities of the NUR better than the OU. The NUR scored better in the clusters of positive atmospherics, facilities, and traffic. Most notable for this particular study, the improved atmospherics and positive feelings scores indicate a significant improvement in the NUR's visual and aural categories.

The improved traffic scores prove that the physical evidence at NUR is significantly better than the OU. This also coincided with higher scores for positive feelings and lower scores for negative feelings. I found very little differentiation across gender in terms of attitudes about both NUR and OU. However, I did find that females were less satisfied with OU facilities, but they were more likely to report higher scores of future behavioral intentions the NUR. Through qualitative analysis, I gained insight into specific areas that students like and dislike about the Student Union, which can further influence decisions to be made about the facility.

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Appendices

Survey

Screening Questions:

       1. Are you 18+ years of age?   ___Yes   ___No

       2. Have you eaten at the Union during the Fall 2017 semester? ___Yes ___No

       3. Did you eat at the Union prior to Union renovation through Fall 2016? __Yes ___No

This section of the survey seeks your opinions based on the Fall 2017 Union dining choice options. Please answer the questions based on your experience visiting the newly renovated section of the Union.

Please check all dining options you have used in the Union

___ Qdoba

___ Chick-fil-A

___ Panda Express

___ Which Wich

___ McAlister's Deli

Based on the options you selected, which dining option do you most often buy food from? (Choose One)

___ Qdoba

___ Chick-fil-A

___ Panda Express

___ Which Wich

___ McAlister's Deli

Your responses to the following questions should be based on your most frequently selected option in the previous question.

Food and Service Quality at <name>

For the dining option you selected, please answer the following questions.

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

1. The <name> has tasty food options
2. The <name> offers healthy food options
3. The <name> offers fresh food
4. The <name> serves my food exactly as ordered
5. Employees are pleasant to deal with
6. Employees process my transaction quickly
7. The <name> has my best interests at heart
8. The <name> is neat in appearance
9. <name> lines are short to place an order
10. <name> has a short wait time to get my food
11. <name> processes my transaction quickly
12. <name> prices are reasonable.
13. <name> always delivers my order error free.
14. <name> has an efficient layout.
15. <name> dining area is neat and clean

Behavioral Intentions

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

Concerning <name> food:

1. I would like to come back to the <name> in the future

2. I would recommend the \<name\> to my friends

3. I would say positive things about the \<name\> to others

Atmospherics

When I visit the New Union I feel/believe…
(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

1. I can easily navigate the space.

2. It is easy to get around

3. It is visually appealing

4. The colors are warm and inviting

5. It creates a pleasant atmosphere

6. The lighting is warm and inviting

7. The music is pleasant

8. The noise level is low

9. It smells pleasant

10. The Union interior is always kept at a comfortable temperature

11. There is good signage making it easy to find what I am looking for.

New Union Facilities

When I visit the New Union, I feel/believe…
(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

1. The restrooms are clean

2. The restrooms are easily accessible

3. The tables and chairs are clean

4. There are a variety of seating options

5. Navigating through the space is easy

6. I can always find a place to sit and relax.

7. The space feels open and airy.

8. I do not feel crowded when visiting.

9. It is congested and noisy.

10. The area is often messy.

11. The area/space often feels cold.

12. The space is uninviting.

Emotion

For the following section:

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= strongly agree)

At the New Union, I feel....

1. Pleased

2. Excited

3. Comfortable

4. Irritated

5. Disappointed

6. Displeased

7. Delighted

8. Angry

9. Relaxed

Q: One thing I really like about the new union (give a text box for response)

Q: One thing I dislike about the new union (textbox)

Q: Overall I think the new union is _____ (you could have a text box or give them choice options...)

 "Now that you have visited/patronized the new union, please think about the Union prior to the renovation, e.g. 'Old Union' up to Fall 2016. Compare the 'New Union' experience to the 'Old Union' experience to respond to the

following questions. Comparing your old union experience to the new union experience...

Please check all dining options you have used in the Union

___ Qdoba

___ Chick-fil-A

___ Panda Express

___ Subway

___ Other: _____ (Please List)

Based on the options you selected, which dining option did you most often buy food from? (Choose One)

___ Qdoba

___ Chick-fil-A

___ Panda Express

___ Subway

___ Other: (Please List)

Your responses to the following questions should be based on your most frequently selected option in the previous question.

Food and Service Quality at <name>

For the dining option you selected, please answer the following questions.

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

1. The <name> had tasty food options
2. The <name> offered healthy food options
3. The <name> offered fresh food
4. The <name> served my food exactly as ordered
5. Employees were pleasant to deal with
6. Employees processed my transaction quickly
7. The <name> had my best interests at heart

8. The <name> was neat in appearance

9. <name> lines were short to place an order

10. <name> had a short wait time to get my food

11. <name> processed my transaction quickly

12. <name> prices were reasonable.

13. <name> always delivered my order error free.

14. <name> had an efficient layout.

15. <name> dining area was neat and clean

Atmospherics

When I visit the Old Union I feel/believe…

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

1. I could easily navigate the space.

2. It was easy to get around

3. It was visually appealing

4. The colors were warm and inviting

5. It created a pleasant atmosphere

6. The lighting was warm and inviting

7. The music was pleasant

8. The noise level was low

9. It smelled pleasant

10. The Union interior is always kept at a comfortable temperature

11. There is good signage making it easy to find what I am looking for.

Old Union Facilities

When I visit the old Union, I feel/believe…

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

1. The restrooms were clean
2. The restrooms were easily accessible
3. The tables and chairs were clean
4. There was a variety of seating options
5. Navigating through the space was easy
6. I could always find a place to sit and relax.
7. The space felt open and airy.
8. I did not feel crowded when visiting.
9. It was congested and noisy.
10. The area was often messy.
11. The area/space often felt cold.
12. The space was uninviting.

Emotion

For the following section:

(On a scale from 1-7 with anchors being 1= extremely disagree and 7= extremely agree)

At the Old Union, I feel....

1. Pleased
2. Excited
3. Comfortable
4. Irritated
5. Disappointed
6. Displeased
7. Delighted
8. Angry
9. Relaxed

One thing I really liked about the old union: (textbox)

One thing I really disliked about the old union: (textbox)

Overall comparing the new union to the old union, I would say….(textbox)

Demographics

    Gender: __Male __Female __Prefer not to answer

    Classification in school: __Freshman __Sophomore __Junior __Senior

Total Factor Analysis

Table 8 – OU Total Factor Analysis

Rotated Component Matrix										
	Component									
	1	2	3	4	5	6	7	8	9	10
[QID87-ChoiceGroup-SelectedChoices] had tasty food options	0.471	-0.048	0.109	-0.129	0.008	0.074	-0.037	0.183	-0.428	0.457
[QID87-ChoiceGroup-SelectedChoices] offered healthy food options	0.141	0.103	0.035	-0.076	0.086	0.061	-0.069	-0.002	0.035	0.866
[QID87-ChoiceGroup-SelectedChoices] offered fresh food	0.365	-0.023	-0.076	0.065	0.177	0.073	-0.077	-0.003	-0.041	0.8
[QID87-ChoiceGroup-SelectedChoices] served my food exactly as ordered	0.653	-0.027	0.173	0.05	0.135	0.145	-0.061	0.131	-0.352	0.183
[QID87-ChoiceGroup-SelectedChoices] employees were pleasant to deal with	0.74	-0.038	0.107	-0.018	0.151	0.062	-0.04	-0.072	-0.063	0.17
[QID87-ChoiceGroup-SelectedChoices] employees processed my transaction quickly	0.813	0.034	0.032	-0.005	-0.031	0.027	-0.064	0.141	-0.062	0.131
[QID87-ChoiceGroup-SelectedChoices] had my best interests at heart	0.685	0.04	0.177	-0.073	-0.113	0.066	0.043	-0.002	0.071	0.316
[QID87-ChoiceGroup-SelectedChoices] was neat in appearance	0.802	0.214	0.051	-0.105	0.116	0.059	-0.016	-0.044	0.099	0.048
[QID87-ChoiceGroup-SelectedChoices] lines were short to place an order	0.643	0.196	0.024	0.116	0.117	0.112	0.125	-0.028	0.434	-0.131
[QID87-ChoiceGroup-SelectedChoices] had a short wait time to get my food	0.757	0.207	-0.011	0.044	0.098	0.127	0.026	-0.022	0.295	-0.182
[QID87-ChoiceGroup-SelectedChoices] processed my transaction quickly	0.798	0.114	-0.017	-0.114	-0.004	0.056	-0.01	0.081	0.061	0.048
[QID87-ChoiceGroup-SelectedChoices] prices were reasonable	0.544	-0.024	0	-0.12	0.077	-0.14	0.107	0.189	0.076	0.397
[QID87-ChoiceGroup-SelectedChoices] always delivered my order error free	0.675	-0.1	0.106	-0.012	0.224	0.03	-0.053	0.255	-0.248	0.137
[QID87-ChoiceGroup-SelectedChoices] had an efficient layout	0.571	0.207	0.066	-0.151	0.22	0.209	-0.052	-0.032	0.121	-0.101
[QID87-ChoiceGroup-SelectedChoices] dining area was neat and clean	0.7	0.097	0.13	-0.069	0.284	0.101	-0.08	-0.018	0.076	0.046
I could easily navigate the old Union space	0.222	0.184	0.15	-0.283	0.084	0.736	0.05	0.19	-0.038	0.099
It was easy to get around the old union	0.163	0.225	0.069	-0.332	0.112	0.724	-0.002	0.152	0.046	0.047
The old union was visually appealing	0.075	0.777	0.25	-0.001	0.054	0.152	-0.029	0.135	0.246	0.073
The old union's colors were warm and inviting	0.022	0.868	0.159	-0.148	0.055	0.087	-0.06	0.127	0.088	0.021
The old union created a pleasant atmosphere	0.153	0.769	0.24	-0.115	0.222	0.147	-0.179	0.105	0.02	-0.044
The old union's lighting was warm and inviting	0.153	0.785	0.261	-0.188	0.127	0.172	-0.087	0.166	-0.029	0.05
The music was pleasant in the old union	0.33	0.537	0.148	-0.045	0.197	0.105	-0.041	0.272	0.03	0.019
The noise level was low in the old union	0.11	0.404	0.141	-0.005	0.191	0.09	-0.022	0.509	0.435	0.031
The old union had a pleasant smell/aroma	0.104	0.437	0.113	-0.013	0.34	0.041	-0.141	0.561	0.172	-0.109
The old Union's interior was always kept at a comfortable temperature	0.044	0.244	0.184	-0.097	0.17	0.21	-0.065	0.777	0.033	0.074
There was good signage in the old union making it easy find what I was looking for	0.064	0.206	0.211	-0.127	0.091	0.292	-0.022	0.691	-0.003	0.046
The Old Union's restrooms were clean	0.226	0.248	0.224	-0.108	0.702	0.017	-0.035	0.139	0.035	0.042
The Old Union's restrooms were easily accessible	0.153	0.16	0.108	-0.191	0.767	0.215	-0.017	0.035	-0.057	0.084
The old union had restrooms that were ADA accessible.	0.179	0.046	0.107	-0.053	0.71	0.205	0.09	0.131	-0.015	0.193
The Old Union's tables and chairs were clean	0.199	0.165	0.101	-0.129	0.613	0.066	-0.107	0.257	0.341	-0.011
There were a variety of seating options in the Old Union	0.065	0.076	0.399	0.074	0.369	0.505	-0.085	0.177	0.222	0.071
Navigating through the Old Union's space was easy	0.155	0.163	0.346	-0.133	0.319	0.645	0.022	0.147	0.08	0.015
I could always find a place to sit and relax in the Old Union.	0.14	0.167	0.378	0.015	0.18	0.455	-0.074	0.198	0.415	0.006
The old union's space felt open and airy	0.228	0.282	0.406	-0.1	0.139	0.371	-0.038	0.211	0.357	-0.083
I did not feel crowded when visiting the old union	0.115	0.265	0.381	-0.01	0.122	0.207	-0.042	0.255	0.597	0.078
The old union was congested and noisy	-0.06	-0.064	-0.08	0.184	0.087	-0.017	0.627	-0.03	-0.511	-0.078
The old union's areas were often messy	-0.14	0.02	-0.094	0.157	-0.186	0.06	0.808	-0.084	-0.228	0.015
The old union's areas/spaces often felt cold	0.084	-0.096	-0.052	0.042	0.082	0.093	0.816	-0.118	0.163	-0.065
The old union's space was uninviting	-0.022	-0.243	-0.184	0.208	-0.02	-0.199	0.773	0.096	0.115	-0.035
At the old Union, I felt... - Pleased	0.131	0.242	0.697	-0.269	0.079	0.217	-0.147	0.101	-0.113	0.068
At the old Union, I felt... - Excited	-0.018	0.308	0.74	-0.104	0.155	0.138	-0.131	0.028	0.133	0.057
At the old Union, I felt... - Comfortable	0.122	0.13	0.724	-0.225	0.138	0.212	-0.032	0.075	-0.146	-0.028
At the old Union, I felt... - Irritated	-0.1	0.024	-0.3	0.767	-0.166	-0.053	0.137	-0.092	-0.13	0.018
At the old Union, I felt... - Disappointed	-0.005	-0.196	-0.246	0.836	-0.139	-0.107	0.103	-0.077	-0.041	-0.028
At the old Union, I felt... - Displeased	-0.098	-0.235	-0.247	0.8	-0.134	-0.16	0.147	-0.07	-0.055	-0.051
At the old Union, I felt... - Delighted	0.102	0.293	0.699	-0.179	0.012	-0.047	-0.04	0.15	0.164	0.048
At the old Union, I felt... - Angry	-0.081	-0.034	-0.013	0.833	0.003	-0.175	0.122	0.004	0.135	-0.041
At the old Union, I felt... - Relaxed	0.203	0.105	0.662	-0.197	0.197	0.114	-0.125	0.201	0.22	-0.129
Extraction Method: Principal Component Analysis.										
Rotation Method: Varimax with Kaiser Normalization.a										
a Rotation converged in 8 iterations.										

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Table 9 – NUR Total Factor Analysis

Rotated Component Matrix											
	Component										
	1	2	3	4	5	6	7	8	9	10	11
[QID6-ChoiceGroup-SelectedChoices] has tasty food options	-0.09	0.065	-0.026	0.01	0.689	0.236	0.149	0.02	-0.097	0.212	0.095
[QID6-ChoiceGroup-SelectedChoices] offers healthy food options	-0.073	0.045	-0.081	0.087	0.154	0.797	0.187	0.045	0.1	-0.14	-0.003
[QID6-ChoiceGroup-SelectedChoices] offers fresh food	-0.062	-0.015	-0.078	0.09	0.266	0.793	0.24	0.092	0.013	0.135	0.098
[QID6-ChoiceGroup-SelectedChoices] serves my food exactly as ordered	-0.045	0.091	0.189	0.128	0.503	0.141	0.18	-0.027	0.014	0.585	0.042
[QID6-ChoiceGroup-SelectedChoices] employees are pleasant to deal with	-0.113	0.127	0.42	0.019	0.329	0.496	-0.025	0.017	0.165	0.206	-0.019
[QID6-ChoiceGroup-SelectedChoices] employees process my transaction quickly	-0.07	0.132	0.703	0.064	0.38	0.098	0.081	0.01	-0.078	0.085	0.138
[QID6-ChoiceGroup-SelectedChoices] has my best interests at heart	-0.114	0.151	0.466	0.116	0.274	0.568	0.101	0.043	0.064	0.007	0.136
[QID6-ChoiceGroup-SelectedChoices] is neat in appearance	-0.103	0.166	0.357	0.239	0.262	0.552	0.039	0.037	-0.155	0.112	-0.066
[QID6-ChoiceGroup-SelectedChoices] lines are short to place an order	0.116	0.083	0.715	-0.014	-0.069	-0.064	0.303	-0.014	0.262	0.067	0.027
[QID6-ChoiceGroup-SelectedChoices] has a short wait time to get my food	0.06	0.106	0.796	0.008	-0.014	-0.11	0.208	0.103	0.186	0.004	-0.053
[QID6-ChoiceGroup-SelectedChoices] processes my transaction quickly	-0.089	0.135	0.728	0.063	0.375	0.134	0.085	-0.025	-0.143	-0.04	0.184
[QID6-ChoiceGroup-SelectedChoices] prices are reasonable	0.009	0.035	0.444	0.08	0.391	0.183	0.097	0.043	0.02	-0.21	0.207
[QID6-ChoiceGroup-SelectedChoices] always delivers my order error free	-0.036	0.056	0.525	0.088	0.354	0.026	0.106	-0.046	0.059	0.528	0.083
[QID6-ChoiceGroup-SelectedChoices] has an efficient layout	-0.164	0.264	0.563	0.211	0.049	0.176	0.004	0.217	0.081	0.201	-0.211
[QID6-ChoiceGroup-SelectedChoices] dining area is neat and clean	-0.203	0.204	0.308	0.259	0.195	0.384	-0.057	0.27	-0.067	0.326	-0.005
I would like to come back to [QID6-ChoiceGroup-SelectedChoices] in the future	-0.18	0.081	0.182	0.111	0.837	0.102	0.058	0.109	-0.015	0.139	-0.016
I would recommend [QID6-ChoiceGroup-SelectedChoices] to my friends	-0.222	0.124	0.225	0.094	0.76	0.228	0.067	0.206	-0.011	-0.071	-0.06
I would say positive things about [QID6-ChoiceGroup-SelectedChoices] to my friends	-0.179	0.198	0.334	0.158	0.672	0.259	0.04	0.227	0.052	-0.037	-0.049
I can easily navigate the space	-0.103	0.313	0.128	0.721	0.229	0.137	0.22	0.116	0.021	0.06	-0.204
It is easy to get around	-0.14	0.339	0.102	0.712	0.172	0.125	0.155	0.071	0.146	0.021	-0.159
It is visually appealing	-0.172	0.715	0.071	0.308	0.161	0.019	0.178	-0.055	-0.045	-0.016	-0.075
The colors are warm and inviting	-0.068	0.823	0.079	0.149	0.145	0.007	0.157	0.066	0.153	0.015	0.039
It creates a pleasant atmosphere	-0.135	0.789	0.131	0.303	0.071	0.056	0.114	0.074	0.064	0.029	0.118
The lighting is warm and inviting	-0.041	0.809	0.129	0.119	0.058	0.02	0.142	0.166	0.006	0.126	0.106
The music is pleasant	0.046	0.578	0.239	-0.125	0.075	0.154	0.164	0.22	0.31	-0.118	0.036
The noise level is low	0.081	0.324	0.224	0.114	-0.054	0.075	-0.022	0.167	0.728	-0.046	0.101
It smells pleasant	-0.054	0.462	0.11	0.102	-0.049	0.218	0.138	0.291	0.314	0.188	0.027
The New Union's interior is always kept at a comfortable temperature	-0.151	0.305	0.191	0.142	0.079	0.067	0.102	0.087	0.152	0.098	0.671
The new union has good signage making it easy find what I am looking for	-0.112	0.414	0.121	0.537	0.187	0.105	0.098	0.123	0.042	0.093	0.214
The New Union's restrooms are clean	-0.093	0.055	0.031	0.108	0.085	0.022	0.108	0.712	0.04	-0.036	0.094
The New Union's restrooms are easily accessible	-0.049	0.135	0.034	0.225	0.259	0.013	0.132	0.706	0.101	-0.16	0
New Union's restroom area clearly marked for ADA accessibility.	0.008	0.166	-0.053	0.11	0.123	-0.013	0.26	0.695	0.166	0.108	-0.113
The New Union's tables and chairs are clean	-0.158	0.152	0.229	0.195	-0.05	0.289	0.057	0.625	0.038	0.137	0.182
There are a variety of seating options in the New Union	-0.066	0.102	-0.009	0.582	-0.021	0.093	0.169	0.318	-0.004	-0.013	0.456
Navigating through the New Union's space is easy	-0.111	0.139	-0.002	0.716	0.086	0.062	0.207	0.207	0.283	0.001	0.172
I can always find a place to sit and relax in the New Union.	-0.083	0.023	0.053	0.518	-0.053	0.086	0.275	0.334	0.359	0.063	0.26
The New Union's space feels open, airy, and modern.	-0.2	0.381	0.085	0.431	-0.005	0.174	0.05	0.215	0.148	-0.056	0.193
I do not feel crowded when visiting the new union	-0.026	0.088	0.088	0.381	-0.036	-0.029	0.268	0.169	0.667	-0.053	0.087
The New Union is congested and noisy	0.55	-0.092	0.044	-0.178	0.024	-0.065	0.046	-0.018	-0.552	-0.15	0.139
The New Union's areas are often messy	0.712	-0.014	-0.051	0.132	0.04	-0.275	0.08	-0.237	0.013	-0.304	-0.048
The new union's area/space often feels cold	0.63	-0.121	0.043	0.151	-0.071	0.033	-0.098	0.019	0.105	-0.398	-0.193
The new union's space is uninviting	0.753	-0.172	0.129	0.037	-0.116	-0.079	-0.093	-0.094	0.172	-0.255	0.043
At the New Union, I feel... - Pleased	-0.296	0.202	0.235	0.285	0.2	0.048	0.656	0.117	0.045	0.125	-0.045
At the New Union, I feel... - Excited	-0.152	0.266	0.295	0.126	0.001	0.186	0.663	0.198	0.087	0.019	-0.031
At the New Union, I feel... - Comfortable	-0.307	0.269	0.19	0.358	-0.018	0.123	0.603	0.221	-0.003	0.053	-0.055
At the New Union, I feel... - Irritated	0.73	-0.052	-0.086	-0.173	-0.124	-0.087	-0.031	0.143	-0.226	0.125	-0.051
At the New Union, I feel... - Disappointed	0.848	-0.061	-0.128	-0.152	-0.11	-0.043	-0.148	-0.058	-0.021	0.199	-0.077
At the New Union, I feel... - Displeased	0.84	-0.029	-0.056	-0.199	-0.169	-0.066	-0.125	-0.085	0.052	0.09	-0.063
At the New Union, I feel... - Delighted	-0.003	0.199	0.116	0.191	0.226	0.193	0.655	0.113	-0.035	0.033	0.125
At the New Union, I feel... - Angry	0.838	-0.05	0.004	-0.147	-0.113	0.036	-0.08	-0.088	-0.065	0.041	0.045
At the New Union, I feel... - Relaxed	-0.061	0.172	0.161	0.132	0.13	0.154	0.637	0.24	0.207	0.001	0.214

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.a

a Rotation converged in 13 iterations.