

A Run for Their Money: Examining Changes in Runners' Event-Related Expenditures

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Abstract

This study examines spending changes between the first and second year of participation in a mass participation sport event. Previous research has been inconclusive about anticipated spending changes from year one to year two, which may be attributed to the prominence of cross-sectional research designs. This study utilized a within-person, year-to-year design with a seven-year sample from a US running event ($n = 247$) to track spending from participants. Using a within-subject ANCOVA, expenditures across eight categories were analyzed as individuals progressed from first-time to repeat participant. Results show no significant differences across any of the spending categories. From the same time frame, a sample of one-off participants was generated ($n = 6,257$) to compare with the repeat participants, and significant differences emerged. These findings provide event organizers and community officials with information regarding the spending behavior of customers in their first and second years, allowing for a more tailored marketing approach.

Keywords: first-time participants, repeat participants, consumer spending, running event, economic impact

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Recent research suggests that mass participation sporting events (MPSE)—the most common of which in the United States are running events—have grown exponentially in popularity over the last decade (Buning & Walker, 2016). For comparison, 1,000 marathon events occurred in the United States in 2017 compared to approximately 300 marathons in 2000, according to the Running USA Annual Marathon Report. Although the total number of marathon events is increasing, the number of US running event finishers has decreased from a high of 19 million in 2013 to 18.1 million in 2018 (Running USA, 2019). As such, these events are in increasing competition to attract participants to their event, as research has indicated that the decline in

participants is linked to a decrease in running involvement (Kennedy et al., 2019). One of the major factors contributing to the growth of MPSEs is the increased popularity of running events combined with the potential for financial gain for the host city. This stems not only from locals who participate (Belson, 2011) but also from out-of-town participants who bring outside money into the local economy (Daniels et al., 2004).

Frequently, organizations provide economic impact analyses for host cities to showcase the financial value of the event in exchange for the support needed to host an MPSE. In the sport context, economic impact is defined as “the net economic change in a host community that results in spending attributed to a sport event”

(Crompton, 1995, p. 15). Previous research has shown positive economic benefits associated with MPSEs (Hinch & Higham, 2001; Walo et al., 1996). Because MPSEs utilize existing community infrastructure, event organizers must provide the host community with proof of the potential benefits that serve not just the event organizers' bottom line but also the community at large. Thus, to accurately determine economic impact, these analyses traditionally track spending broken down into categories that affect both the event organizers and host community.

To obtain the largest possible economic impact, event organizers are motivated to increase the overall number of participants in the event. Traditionally, managers have focused on loyalty, or increasing future event participation or purchase intention of current participants (Hill & Green, 2012). For MPSEs, the importance of loyalty exists because events often offer discounted registration fees for loyal customers. Further, Oppermann (1998) suggested that it is more cost efficient for organizations to retain previous customers than to attract new ones. However, prior research has also noted that as repeat participants or visitors become more accustomed to a location, spending may decrease due to the increased familiarity (Wang, 2004).

Despite the findings of Wang (2004), research examining the difference in spending levels between first-time and repeat customers (Alegre & Juaneda, 2006; Godbey & Graefe, 1991; Myburgh et al., 2014; Oppermann, 1997; Tang & Turco, 2001) has failed to form a consensus. Several researchers found that first-time visitors/participants had higher spending than repeaters (Alegre & Juaneda, 2006; Tang & Turco, 2001), a finding that is congruent with Godbey and Graefe's (1991) argument that increased, consistent attendance will lead to repeaters becoming more calculated with their expenditures. In contrast, other researchers posited that repeat customers are more interested in quality and are thus more willing to increase their overall and event-related spending (Myburgh et al., 2014; Shani et al., 2009). An alternative possibility uncovered by researchers is that there is no statistical difference between the spending habits of first-time and repeat visitors (Li et al., 2008; Wang et al., 2006). With such conflicting research findings, it is difficult to determine what spending changes should be anticipated between the first and second year of participation.

Though several explanations for these contradictory findings may exist, a consistent limitation of much of the research on the topic of repeat consumption is their methodology: cross-sectional research designs (Alegre & Juaneda, 2006; Myburgh et al., 2014; Shani et al., 2009; Tang & Turco, 2001). When researchers

utilize cross-sectional studies, they rely on consumers to identify whether they had previously participated in the event and then ask them to provide an estimate of their spending. Researchers then compare the spending levels between groups segmented by participation status based on the volunteered data. These studies simply compared self-reported data from groups, not attempting to provide estimates for how spending changes from the first year of participation to the second. Additionally, this approach ignores important within-subject differences that could influence spending in individuals.

Within-subject designs have been shown to have a few main advantages when compared to between-subject approaches. First, the internal validity of within-subject designs is not dependent upon random assignment. Second, in many designs, within-subject approaches offer an increase in statistical power. Lastly, within-subject approaches may be more aligned with theoretical points of view (Charness et al., 2012). By utilizing a within-subject design, more accurate statements can be made about the change from first-time to repeat participant. According to Avey et al. (2008), longitudinal data offers an advantage of providing within-person variance, which allows for tracking changes of individuals over time.

Several scholars posit that longitudinal studies are more reliable than cross-sectional methods for observing changes over time because of the consistent monitoring of behavior (Rowe et al., 1976). According to Rindfleisch et al. (2008), longitudinal surveys provide the ability to minimize response bias by separating variables over a longer period. Therefore, more conclusive answers regarding repeat customer spending might be obtained by examining a multi-year sample.

Unfortunately, there remains a paucity of research utilizing longitudinal studies to examine spending differences between first-time and repeat participants. According to Funk et al. (2016), 80% of articles published in the *Journal of Sport Management* from 2010 to 2014 used cross-sectional data collection. The remaining 20%, which used multiple data collections, generally saw these multiple collections used for the purpose of scale development rather than to strengthen the study longitudinally. Sport management scholars have employed longitudinal designs to examine changes of subjects from one year to another (Katz & Heere, 2016; Kunkel et al., 2016). Katz and Heere (2016) used longitudinal data to track changes in team identification among stakeholders in relation to new football teams. In addition, Kunkel et al. (2016) employed an 18-month longitudinal study to observe development of team brand association among sport consumers of a new

professional football team. In this regard, sport management literature has increased the level of rigor in how research is conducted. Following this trend, by examining a multi-year sample, more conclusive answers to the conflicting knowledge of repeat customer spending can be obtained by using longitudinal methods.

The purpose of the current study is to use a more rigorous methodology to examine behavioral changes of event participants over multiple years and throughout multiple spending categories while providing clarity to the question of if first-time or repeat participants contribute more economically. By looking at spending categorically, statements can be made regarding not only the effect on the event itself but also to shed additional light on an MPSEs' specific economic impact upon a host city. Critically, the study also responds to a call for sport management researchers to adopt more robust methods and shift research methods away from cross-sectional designs (Funk et al., 2016; Funk, 2017). Further, the results will provide sport management researchers and managers with an understanding of how MPSE participants spend money using a more scrutinizing approach.

Literature Review

Active Sport Tourism

Research regarding sport tourism has covered a variety of contexts, including work displaying motivations and constraints of sport tourists, use of public subsidies towards major sporting events, and the economic impact of sport tourism events (Gibson, 1998b). The term sport tourism broadly encompasses different types of sport-related leisure travel. This manuscript focuses on the active participation, or what has been defined as active sport tourism (Gibson, 1998a). This label refers to individuals who travel to participate in sporting events such as skiing, golfing, running, and cycling events (Gibson et al., 2018). Within active sport tourism are two groups: activity participants and hobbyists. Activity participants refers to individuals who travel and engage in sport as a form of leisure on their vacation, while hobbyists refer to individuals who are traveling to actively take part in a competition (Gibson, 1998a). This study focuses on the hobbyists, or in this context, those who travel to take place in an MPSE.

Recent research has examined motivational factors associated with active sport tourists in different contexts. This research has found that runners are more likely to be motivated to explore a destination while also having a higher preference for ancillary aspects related to what a destination offers compared to cyclists and triathletes (Newland & Aicher, 2018). Other research examining active sport tourists has found that

increasing perceived quality is the most crucial factor for improving destination loyalty of novice participants (Sato et al., 2018). These findings indicate that when novice participants feel they have received a quality experience, they are more likely to develop loyalty toward the destination. In addition, runners are more likely to engage in ancillary events surrounding their contest. As such, the availability of options and their ability to provide a quality experience are imperative in developing continued destination loyalty.

One reason cities choose to engage with sport tourism events is because of the economic benefits they provide. As Kurtzman (2005) suggested, it is important to distinguish the difference between financial profits or losses related to the event and the overall economic impact that a sport tourism event provides. While the actual event may be run at a financial loss, the overall economic benefit provided to the city can be positive. For example, although the 2004 Athens Summer Olympics ran badly over budget and was estimated to have accrued \$14–15 billion in debt (Schlotterbeck, 2012), an economic impact study found that “there is strong evidence of a short-term positive effect from hosting the Olympic Games, reflected in several important economic indicators” (Zonzilos et al., 2015, p. 59).

It is also important to acknowledge the distinct economic benefits of smaller community-based events, such as MPSEs. Notably, Walo et al. (1996) suggested that smaller events such as marathons deserve more research attention because these events use existing resources in the city, resulting in lower opportunity cost and higher community benefit. While an MPSE will not necessarily generate national or global attention, they are significantly less likely to have a negative economic impact (Hinch & Higham, 2001). Further, MPSEs allow for flow-on tourism, or tourist activities that extend beyond the event but are available surrounding the event (Taks et al., 2009). These ancillary events can help provide economic benefit not just to the event organizers but also to the host city as well.

Economic Impact of MPSEs

Although MPSEs have been studied by multiple different authors (Funk & Bruun, 2017; Myburgh et al., 2014; Sato et al., 2014), an established, all-encompassing definition has still not been identified. Crofts et al. (2012) defined MPSEs as “community-based open entry events that require participants to engage in moderate-to-high levels of energy expenditure” (p. 149). Although useable, the definition does not mention the use of existing infrastructure for facilities or the number of participants exceeding the total number of spectators, which can be found in alternative definitions. For example, according to the definition of

Crofts et al. (2012), youth or recreational sport leagues could be considered MPSEs, which is not the case. Therefore, based upon Crofts et al.'s (2012) definition, a new definition is proposed to differentiate participant events from youth or recreational sport: MPSEs are community-based, open-entry sport events, with two defining features: (1) They primarily make use of existing community infrastructure to stage the event, and (2) the focus is on participation not spectatorship. There is no limit to the number of participants in an MPSE, provided the event organizer and venue can accommodate all participants.

The economic benefit that MPSEs provide for host cities stems from the significant portion of participants who are also tourists traveling from out of town (Case et al., 2013). Tourist expenditures reflect an injection of new money into the destination (Dwyer et al., 2000). To accurately capture how this injection of money affects the local economy, it is standard for economic impact reports to include spending in a variety of categories. The typical categories that are examined for this calculation usually consist of tourist attractions, lodging, transportation, food and beverage, entertainment, shopping, registration fees, and other. It is important to note that among these categories, only registration fees and (possibly) other influence the overall profitability for event managers. The remaining categories directly influence the local economy, either toward the government or private businesses.

Within local economies, certain industries rely specifically on tourists to flourish. However, other businesses can benefit from the presence of increased tourism as well. Hotels, restaurants, taxis, and retail stores all benefit from the presence of tourists. Expenditure categories function to define key sectors directly affected and help orient the spending data into a regional economic model (Stynes & White, 2006). As noted by Alegre et al. (2011), the tourist spending directly influences the destination's overall profitability. Because of the intertwined nature of MPSEs and host cities, ample research opportunities exist to examine participants, event organizers, and the economic benefit to the host city itself. This includes research on MPSEs that examined the potential economic benefits that these non-elite events offered when compared to elite mega-events (Coleman & Ramchandani, 2010).

Customer Loyalty

This distinction between first- and second-time participants is of interest for researchers as repeat participation is a key outcome of increased consumer loyalty for sporting events (Caro & Garcia, 2007). Because of the increased cost of attracting new consumers as well as the fact that highly satisfied consumers are

more likely to repeat attendance and to spread positive word of mouth (Koo et al., 2014), event managers are incentivized to work hard to retain as many consumers as possible. Other research has noted the importance of merging event attributes with destination attributes to positively influence consumer's word of mouth and repeat participation behavior (Kaplanidou et al., 2012). These steps are taken to ensure the event can benefit from the positive effects of enhanced consumer loyalty.

Within sport management literature, specifically related to running events, research has informed our understanding of consumer loyalty. The positive impact of event involvement and brand image of running events are shown to have an overall positive influence on consumer loyalty (Alexandris, 2016). Further, it has been noted that many participants in marathon running events are leisure runners rather than competitive runners. As a result, there is a need for event marketers to provide opportunities to enhance leisure runner's loyalty specifically as opposed to targeting hardcore, competitive marathoners (Alexandris et al., 2017). Due to these differences in participants, it is important for event organizers to understand their customers and the value they provide.

The true value of loyal customers has been the focus of a measure called customer lifetime value (CLV). CLV is commonly used by organizations and contains two main components: how long a consumer has been a customer and how much revenue that individual provided. Additionally, customer satisfaction and loyalty are the two key factors when attempting to improve CLV (Qi et al., 2012). While CLV is particularly useful to measure internal value provided by a customer, for MPSEs, CLV does not capture the true value of each consumer, as the amount they spent within the economy also benefits the event organizers indirectly. Though CLV has proven to be an effective and insightful measure, perhaps the truth of consumer spending over time is a bit more nuanced, particularly in the context of annual events such as MPSEs. It is also important to note that CLV is often utilized in industries where consumers are able to purchase multiple items, whereas MPSEs differ as registration fees are one-time, annual expenses. But it is noteworthy to acknowledge that a significant portion of their participation value comes in the form of other types of spending that benefit local businesses and government.

First-Timer vs. Repeater Distinction

MPSE research has also examined changes that exist between the first and second time participating. Myburgh et al. (2014) looked at segmentation differences between first-time and repeat triathlon participants, with spending differences included. The author's

post-event survey contained sections documenting demographic variables and spending behavior as well as some related behavioral questions regarding previous participation. Results of the study showed three clusters of participants: devotees, enthusiasts, and aspirationalists. Devotees, the group with the most prior participation, was found to have the highest per person spending. Similarly, Sato et al. (2014) studied the spending behaviors of MPSE participants, examining the determinants of tourists' expenditure at a running MPSE by integrating economic constraints as well as travel-related, demographical, and sport-related details into an overall expenditure model. They found that casual participants were more likely to spend money than avid participants, which may relate to first-time and repeat participation.

Notably, this breakdown of participants into specific groups has been of interest for over a decade. For example, several researchers found that first-time visitors/participants spend more than repeat visitors during their stay at the tourist/event destination (Alegre & Cladera, 2010; Alegre & Juaneda, 2006). Tang and Turco (2001) examined the spending difference between first-time and repeat event visitors at the Kodak Albuquerque International Balloon Fiesta—the largest ballooning festival in the world—finding that first-time visitors spent more than repeat visitors. The authors argued that repeat visitors spend less money following the “been there, done that” expression; in other words, repeat visitors may save money by not attending certain sights or experiences again if they have already done it in the past. Alegre and Juaneda (2006) also examined differences in spending between first-time and repeat visitors but used the context of a prominent tourist destination in the Spanish Balearic Islands. They similarly found that first-time visitors spent more compared to repeat visitors at the destination, arguing that repeat visitors' better familiarity and increased knowledge about the destination may explain the spending difference. First-time visitors/participants use price as a quality signal since they are uncertain about the destination's characteristics (Keane, 1997). Therefore, if a similar quality product or service is offered at two different prices, first-time visitors/participants are inclined to choose higher priced goods compared to repeat visitors/participants (Alegre & Cladera, 2010).

In contrast, some researchers suggest that repeat visitors/participants spend more during their visit at the destination (Shani et al., 2009; Wang, 2004). Shani et al. (2009) explored the spending difference between first-time and repeat visitors in the context of the Zora! Festival, a cultural festival in Eatonville, Florida. They

find that repeat visitors spent substantially more than first-time visitors. Similarly, Wang (2004) examined the spending difference between first-time and repeat visitors of Hong Kong in 1999, finding that, in comparison to first-time visitors, repeat visitors had a higher average total spending and higher average spending on different product categories, including accommodation, transportation, tourist attractions, and shopping.

Lastly, a handful of researchers suggest that there is no significant spending difference between first-time and repeat visitor/participants (Li et al., 2008; Myburgh et al., 2014). In the context of sporting events, Myburgh et al. (2014) examined the spending difference between first-time and repeat participants of the Ironman South Africa triathlon event. Their findings, consistent with Li et al., (2008), suggested no significant statistical differences in total expenditure between the two groups. The lack of significant differences can be attributed to the fact that, in different situations, both first-timers and repeaters can be expected to spend more money. For example, Myburgh et al. (2014) noted that repeat triathlon participants who are loyal are more likely to increase their event-related spending, while first-time participants are simply more likely to spend more at events compared to repeaters. Li et al. (2008) noted a similar finding that while there is little difference in expenditures of the two groups, first-timers may spend more money on transportation and lodging than repeaters. Due to these conflicting results, the following research questions are presented:

RQ1: What are the changes, if any, in total spending between first-time and repeat participants?

RQ2: What are the changes, if any, in categorical spending between first-time and repeat participants?

RQ3: What are the differences in spending between these repeat participants and one-off participants?

These contradictory findings might also have been reached because of the methodology they employed—cross-sectional research designs (Alegre & Juaneda, 2006; Myburgh et al., 2014; Shani et al., 2009; Tang & Turco, 2001). While a cross-sectional approach is appropriate for a single point in time, relying on cross-sectional data to determine differences over a change in status can be problematic. As mentioned earlier, a longitudinal approach is more suitable and reliable for tracking changes over time because of the consistent monitoring of behavior and minimizing response bias of subjects (Rindfleisch et al., 2008; Rowe et al., 1976). To accurately observe these changes, a within-subject, multi-year sample is needed. Previously, Sato et al. (2014) looked at MPSE participant spending over a five-year period; however, the goal of the research was not concerned with tracking spending within-subject

but rather for assessing the effects of sociodemographic variables on spending in each given year.

More broadly, research has attempted to uncover reasons for overall expenditure related to active sport tourism. For example, overall spending of participants of a mountain bike event were found to be significantly determined by the size of travel party, the length of stay, how far the participant traveled, and the participant's income (Buning et al., 2016). A review article has also examined the determinants of tourist expenditure across 86 different articles (Brida & Scuderi, 2013). The findings show similar results, as income, sociodemographic, and trip-related variables are the most common explanatory variables utilized. This prior literature informs to the direction of the current study.

In summary, this research attempts to fill the current gap and clarify the uncertainty regarding the changes in spending of participants from their first year to the second. Specifically, the same group of marathon participants were examined through multiple points in time, both as a first-time participant and a repeat participant. By analyzing this sample, we are able to determine what differences, if any, exist between the two times of participation over eight different spending categories. Furthermore, the repeat participants' first and second events were compared with a group of one-off participants who only participated one single time. By examining these two groups, spending differences between repeat participants and one-off participants can be established. These findings can potentially aid MPSE organizers and community officials by allowing them to more effectively target these differing consumer groups to improve overall economic profitability.

Method

The purpose of this study was to examine categorical spending differences between first time MPSE participants and repeat participants. In addition, this study utilized a longitudinal, within-subject approach to minimize any potential validity issues and to increase certainty regarding changes over time. As such, the Miami Marathon was chosen as an appropriate context.

Participants

To collect the necessary data, a survey was sent by event organizers to all registered participants who had provided an email address. From this group, the specific sample of individuals who were participating in the event for the first time were identified. Following identification, the researchers examined this sample to see if they repeated participation within the time frame of available data. From this, 247 paired samples were generated for each category of first-time and repeat participant. Thus, these 247 participants' spending

information was collected for the first two times they participated in the marathon. By only including participants' initial year of participation and their subsequent year of participation (not necessarily consecutive), the analysis regarding their spending habits can be examined more reliably, as it directly examines the change from first-time participation to repeat participation. The data only included spending information from nonlocal participants to accurately measure out-of-town dollars being brought into the economy.

To further examine differences in spending, these 247 paired samples were compared to a sample of 6,257 participants who only participated in the Miami Marathon once over the same time frame. These participants had indicated that this was their first year of participating, and they did not show up in subsequent years' datasets. Similar to the 247 paired samples, these 6,257 participants were out-of-town participants who reported spending. Participants who did not report any level of spending were excluded from analysis.

Materials

To select appropriate demographic, independent variables and covariates, the work of Wang and Davidson (2010), who conducted a micro-analysis of tourist expenditure research, was followed. Previous studies have utilized a wide range of both sociodemographic and psychological variables as the independent variables, where income was the most common demographical variable accounted for in previous studies. In addition, income, education, gender, ethnicity, and age were also collected. The current study utilizes total trip expenditure for individuals by adding up spending from eight different categories: tourist attractions, lodging, transportation, food and beverage, entertainment, shopping, registration fees, and other. These categories were chosen due to consistency with prior research as well as following the recommendations of Stynes and White (2006). For each category, participants were asked to report the amount of money that was spent only for themselves, not for their entire group. These categories were summed to create their total level of spending. The participant's email addresses were also collected and allowed for the matching of participant information. Additionally, questions regarding overall satisfaction with the event were included at the request of the event organizers (e.g., please indicate your level of satisfaction with event attributes, event operations, service deliveries, etc.).

Procedures

Data were collected via a survey instrument distributed by the Miami Marathon event organizers. The survey was sent to participants one week after the conclusion

of the event and remained open for two weeks. Subsequently, a follow-up reminder email was sent a week after the initial contact was made. This procedure remained consistent through each year of data collection. Within this survey were not only questions regarding spending but also other demographic variables.

Data Analysis

Once the dataset was compiled, a within-subject analysis of covariance (ANCOVA) was performed using SPSS 25 (via IBM) to test the research questions. The univariate ANCOVA compared participants' first year of spending in multiple categories to their second year's spending in an attempt to uncover any statistical differences. In this analysis, demographic variables such as age, income, gender, and ethnicity were included as covariates in accordance with other sport tourism research (Table 1). To test between the subjects of one-off participants and repeat participants, two multivariate analyses of covariance (MANCOVA) were conducted. One that compared one-off participants against the first year of participation and a second that compared one-off participants with the second year of participation. The spending segments included tourist attractions, lodging, transportation, food and beverage, entertainment, shopping, registration fees, and other. In sum, these expenditures formed the total expenditure. The issue of blank values came up when respondents were asked to indicate the amount of money a participant spent in a given category. Some respondents indicated no spending by entering 0 while others appeared to simply not enter a value. Following Stynes and White (2006) and Sato et al. (2014), all blank responses were converted to 0 when the individual reported spending in any other expenditure categories. Participants who left either their first year or repeat year blank for all spending categories were removed from the sample.

Results

The results of a within-subject ANCOVA found no statistically significant difference of participants' status as first-timer (mean = 967.11) and repeater (mean = 926.45) on total spending, Wilks' Lambda = .997, $F(1, 245) = .750, p > .05$. In order to test Research Question 2, spending was categorized into eight different segments: food and beverage, lodging, retail shopping, local transportation, tourist attractions, entertainment and recreation, race registration fees, and other expenses. The results of the within-subject ANCOVA indicated that participants' status as first-time or repeat participant did not have any significant effect on the eight different spending categories.

To further examine differences in spending among each category, these 247 paired samples were compared

Table 1. Descriptive Statistics

Variable	Category	Repeaters (n = 247)	One-off (n = 6,257)
Gender	Male	43.0%	47.8%
	Female	33.0%*	52.2%*
	Decline to respond	24.0%*	0.0%*
Ethnicity	White/Caucasian	62.0%	58.2%
	African American	8.0%	5.9%
	Hispanic	23.2%	28.9%
	Asian	2.1%	2.6%
	Native American	0.0%	0.3%
	Pacific Islander	0.0%	0.2%
	Other	4.6%	3.8%
	Education	Less than High School	0.0%
	High School/GED	2.3%	2.8%
	Some College	7.8%	7.6%
	2-year college degree	6.2%	5.7%
	4-year college degree	41.2%	37.6%
	Master's degree	30.4%	32.0%
	Doctoral degree	1.6%	3.4%
	Professional degree	10.5%	10.2%
Age	Less than 16	0.0%	0.5%
	16-19	0.8%	1.1%
	20-24	3.8%	6.1%
	25-34	22.4%	30.6%
	35-44	37.3%	33.9%
	45-54	25.9%	20.9%
	55-64	8.7%	5.9%
	65 years and over	1.1%	0.9%

Note: * = statistically significantly different at $p < .05$.

to a sample of 6,257 participants who only participated in the Miami Marathon once over the same time frame. Although no significant difference existed between the repeaters; first and second years, potential differences found between these individuals and those who only participated once can inform potential spending behaviors. First, spending of these one-off participants was compared to first year spending of the repeat participant group. The mean difference of spending is shown in Table 2. The results of a one-way MANCOVA while controlling for demographical covariates found statistically significant differences between the group in the categories of transportation $F(1, 6501) = 4.292, p < .05$ and total spending $F(1, 6501) = 4.760, p < .05$. Second, spending of these one-off participants was compared to the spending of the repeat participants during

Table 2. ANCOVA of Mean Spending

Category	Year 1 (n = 247)	Year 2 (n = 247)
Food	\$195.49	\$192.22
Lodging	\$250.35	\$264.36
Shopping	\$229.29	\$190.49
Transportation	\$85.90	\$89.50
Attraction	\$13.81	\$12.97
Entertainment	\$27.99	\$26.87
Registration	\$89.54	\$81.25
Other	\$74.72	\$70.41
Total	\$967.11	\$926.45

Note: No statistical differences on all categories ($p > .05$).

their second year. The mean difference of spending can be seen in Table 3. The results of a one-way MANCOVA while controlling for demographic variables found statistically significant differences between the group in the categories of shopping $F(1, 6501) = 4.799, p < .05$, registration $F(1, 6501) = 6.710, p < .05$, and total spending $F(1, 6501) = 6.247, p < .05$. Because of the discrepancy in sample sizes, it was necessary to conduct Levene's test for homogeneity of variance. Levene's test revealed that the assumption of variance homogeneity in the two spending groups (one-off and repeat) resulted in failure to reject the null hypothesis at the $p = .05$ level, indicating that the variances were equal over the groups: first year for repeat participants and one-off participants, $F(1, 6501) = 3.761, p = .053$; second year for repeat participants and one-off participants, $F(1, 6501) = 3.613, p = .057$. Further tests for homogeneity of variance were conducted for categories with significant differences. Results indicate that the significant difference between first-year and one-off participants in transportation indicated equal variances: $F(1, 6501) = 3.322, p = .068$. For the significant difference between second year and one-off in registration, again Levene's test indicated equal variances: $F(1, 6501) = .388, p = .534$. However, when Levene's test was conducted for second-year shopping, results indicate unequal variances: $F(1, 6501) = 10.236, p = .001$.

Additionally, this study found that one-off participants spent more money on tourist attractions than repeaters did in either their first or second year. While no significant differences were found between repeat participant's first and second year of running the Miami Marathon, there were significant differences between this group and participants who only participated one single time. One-off participants reported significantly higher levels of spending (\$1,304.91) than

Table 3. Mean Spending

Category	One-off	Repeater (1st year)	Repeater (2nd year)
Food	\$254.82 (415.33)	\$195.49 (374.94)	\$192.22 (282.08)
Lodging	\$370.02 (880.20)	\$250.35 (413.52)	\$264.36 (385.15)
Shopping	\$315.98 (849.59)	\$229.29 (547.08)	\$190.49* (567.55)
Transportation	\$113.34 (188.82)	\$85.90* (139.23)	\$89.50 (137.58)
Attraction	\$30.03 (169.80)	\$13.81 (73.27)	\$12.97 (54.78)
Entertainment	\$45.06 (159.82)	\$27.99 (86.99)	\$26.87 (74.52)
Registration	\$99.92 (105.55)	\$89.54 (43.07)	\$81.25* (45.77)
Other	\$76.51 (249.43)	\$74.72 (190.19)	\$70.41 (288.95)
Total	\$1,304.91 (2048.96)	\$967.11* (1295.84)	\$926.45* (1248.40)

Notes: * = statistically significant vs. one-off ($p < .05$). Standard deviations appear in parentheses below each mean.

repeat participants' first year (\$967.11) and second year (\$926.45) of participation. When examining spending categorically, other significant differences also emerge. Transportation spending between one-off participants and first-year repeaters (one-off participants: \$113.34; repeat first-year: \$85.90) resulted in significant differences. Likewise, shopping between one-off participants and second year repeaters (one-off participants: \$315.98; repeat second year: \$190.49) and registration between one-off participants and second year repeaters (one-off participants: \$99.92; repeat second year: \$81.25) resulted in significant differences.

Discussion

This study utilized a multi-year, within-subject approach as longitudinal studies provide more reliable findings compared to cross-sectional methodology for examining changes over time (Rowe et al., 1976). Regarding RQ1, the results of the current study provide empirical evidence supporting the position that there is no significant total spending difference between first-time and repeat visitors/participants, which is consistent with the findings of Li et al. (2008) and Myburgh et al. (2014). By developing a study that examines within-subject spending differences over multiple years for MPSE participants, more clarity regarding the segmentation of first-time and repeat participants

is provided. Further, by comparing this group with one-off participants, we see how a new potential segmentation can provide more value for event organizers. Concerning RQ2, contrary to the findings of Li et al. (2008), first-time participants spent less money in both the categories of transportation and lodging, although the differences were not statistically significant. It is possible that these differences are related to participant familiarity with not only the destination but traveling in general—two measures that were not captured within the survey.

Logically, the decline in registration spending between one-off participants and repeat participants second year is expected. This specific issue addresses RQ3, which asked about how repeat participants and one-off participants differed in spending. The event offers a discount for early registration; as such, repeat participants who are more familiar with the event are able to take advantage of this discount. One-off participants are less likely to take advantage of early registration, which could be a result of a spontaneous decision to participate or less overall commitment toward the event or activity, and thus generally pay a higher amount. Similarly, shopping follows the same pattern, with the one-off participants spending significantly more than the repeat participants. As participants return to the event a year later, their knowledge of the event and host destination result in lower spending across the board than the one-off participants. This follows previous research that has indicated first-time attendees are more likely to be active in their trip planning while repeaters are more likely to be focused on recreation or activities (Li et al., 2008).

However, from the results, we also see that one-off participants spend more overall than those who eventually repeat, even in their first year of participation. No demographic differences were found to account for this change. As such, there is likely an attitudinal, behavioral, or motivational variable affecting these two groups' spending habits. Prior research by Sato et al. (2014) concluded that casual participants spent more money than avid participants. Additionally, past event participation was found to be negatively correlated with overall expenditure. The findings of the current research support this notion, as one-off participants spent significantly more than repeat participants. This could also be related to the fact that first-time participants are more inclined to choose higher priced goods (Alegre & Cladera, 2010). As such, first-time participants may be more willing to attend an MPSE at a highly desirable, higher cost tourist destination, such as Miami, rather than a more local, cost-efficient event. Furthermore, prior research by Taylor and Shanka

(2008) found motivational differences between first-time and repeat participants. The repeat participants were more likely to be motivated by achievement, whereas the first-time participants were more likely to be motivated by involvement, status, and socialization, which are not necessarily directly related to the event itself but could be satiated by ancillary events.

Managerial Implications

The results of this research offer several important managerial implications. First, while a significant body of research has attempted to address spending differences between first-time and repeat participants, the current results indicate that this distinction does not provide meaningful information for assessing the economic value of participants. In business, it is commonly understood that attracting new clients can be five times more expensive than retaining existing ones (Kandampully & Duddy, 1999). However, for MPSEs, the value of new customers expands beyond the host organization to the community they visit in the form of flow-on tourism. The current research suggests that managers look at different variables aside from first-time or repeat participation to determine how to strategically plan to increase overall economic benefit.

Although there were no significant differences between the repeat participant group and the first-timers, the one-off participants did show significantly higher spending overall compared to repeaters. Thus, event managers should not shy away from developing a marketing strategy that primarily targets those consumers who may only participate in the event once. Participation in a running event may be included as part of a vacation to the destination for one-off participants. Thus, event organizers should develop marketing strategies that take into account the specific characteristics of these one-off participants. One strategy is to develop a partnership with online travel agent websites such as Orbitz, Travelocity, and Expedia. Special offerings in relation to participating in the MPSE event could be included in the travel package bundle offerings (e.g., flights, hotels, car rentals, activities). Based on a previous study (Ning & Zhang, 2019), travel bundling packaging, or booking more than one component of travel together, had a considerable positive impact on consumers' purchase intention. By tapping into this potential for increased purchase intention, these special offerings could address categories where spending was lower, such as discount coupons to destination restaurants, tourist attractions, entertainment events, and stores during the running event. By helping promote categories that have lower levels of spending, event

organizers can show host cities they are working hard to provide value to as many local businesses as possible.

Further, because the event has a plethora of one-off participants, loyalty programs should be promoted and enacted directly following completion of the event as this has been found to be an effective tool to increase retention (Myburgh et al., 2014). Thus, event organizers should develop marketing strategies that increase the number of first-time participants while also implementing strategies aimed at increasing their future retention. In order to convert these one-off participants to repeat participants, event organizers should implement rewards programs with the development of an event mobile app. Prior research suggests that mobile applications can help businesses positively influence customer relationships, including consumer loyalty and retention management (Kumar et al., 2018). The mobile app for the event could provide multiple benefits, such as increased exposure to event sponsors, more consumer engagement with the event, and the ability to track consumer's engagement with sponsors. This data can help event organizers with developing a more accurate CLV measure for MPSEs. Balancing between these groups would maximize revenue while also contributing to the host city's economy in the most impactful way.

Host cities of MPSEs should also take note of this study's findings. By looking at spending categorically, host cities can determine areas that out-of-town participants are spending both the most and least amounts of money. From the results of this study, one-off participants spend significantly more overall while also spending more in each category. By targeting categories of spending that are lower than others, cities can work with local businesses in an attempt to drive spending in a particular category. Specifically, spending in the categories of tourist attractions and entertainment is of interest. These two categories resulted in the only areas where participants spent less than \$50 throughout each possible condition, with as low as \$13 average reported by second-year repeaters. These two categories present an opportunity for event organizers and city officials to strategically market and highlight opportunities for increased expenditure. This involves event organizers partnering more closely with local tourist attractions and entertainment options and ensuring that participants are aware of their options when they are not competing. Research has shown that first-timers are more likely to be active in their trip planning (Li et al., 2008), and as such, providing them with more information regarding entertainment and tourist attraction options prior to travelling can prove beneficial. Further, businesses within these categories

should be welcoming to the active sport tourists by offering discounts or holding marathon-related events for participants. These businesses are currently missing out on potential revenue that is only available when the event takes place. Even if it means offering discounted options, local businesses would be remiss to not take advantage of the potential revenue spike associated with the influx of out-of-town consumers.

It is imperative for host cities of MPSEs to work in close conjunction with local businesses in an attempt to increase the associated flow-on tourism from a marathon. From this study, city officials can see that both repeat and first-time participants spent nearly \$1,000 during their trip to Miami, with only about 10% of that going to the event organizers. From a managerial perspective, this provides strong, easily digestible information that supports the notion that the host city benefits significantly from the MPSE being held. While this finding runs in accordance with prior research, the current study adds to our understanding of participants' spending habits within specific categories at different stages of event participation (one-off, first time, or repeat).

Theoretical Implications

The findings of this study contribute to our knowledge of consumer loyalty in MPSEs. While prior research has noted the importance for sport events to retain consumers, the fact remained that research has provided conflicting results as to which group spends more money: first-time or repeat participants. From the results, we contend that our understanding of loyalty in most consumer contexts differs from that of MPSEs. Both customer loyalty and CLV might manifest in different ways for consumers in annual running events. As consumers do not have the ability to increase their frequency of purchase (in the form of registration fees), it is necessary to take this into account when discussing and researching these topics in MPSEs. Often, customer loyalty in sport management focuses on attitudes toward sponsorship brands and consumers of spectator sports. However, these areas of interest differ from the current research study. For example, loyalty toward sponsoring brands involves a third party that utilizes brand associations to influence consumers. In spectator sports, loyalty can be repeatedly displayed through increased attendance, merchandise purchases, and increased media consumption. But in the case of MPSEs, if we use the same measures of loyalty, consumers' loyalty can only be measured in a binary manner—either the customer continued to participate, or they did not. Additionally, once the event is completed, it is unlikely they would continue engagement with the

event brand. Thus, it is important to understand that our understanding of loyalty and CLV do not directly overlap to annual participant events such as MPSEs.

Further, the findings inform to the need for altering how CLV is calculated for MPSEs. Any product, good, or service that cannot see an increase in quantity sold to an individual, such as registration fees, needs to find a different manner to consider loyalty and CLV. Prior research had demonstrated that CLV is positively influenced by consumer loyalty (Qi et al., 2012). However, in this study, it was not found that repeat participants spent significantly more than first-time participants. Some of this can be attributed to the fact that repeat participants are more familiar with a destination, are able to make more informed decisions when booking travel, and may be less likely to spend on retail items (Alegre & Juaneda, 2006; Tang & Turco, 2001). Also, it is commonplace for registration to be discounted for early or repeat participation. Thus, even if all other spending was equal, the overall spend may still be lower due to the discount. As a result, it is important to reconsider the approach with which CLV is viewed or calculated in this context. Theoretically, customer loyalty has been proven to be important toward increasing purchase behavior in spectator sports contexts. However, this knowledge cannot be simply placed into the MPSE context. As such, it is important to take a different approach toward loyalty in MPSEs.

Limitations and Future Research

This research is not without limitations. First, although the distinction between first-time and second-time participants was clear, the distinction between being a first-time and repeat visitor was not. No survey items were included that assessed how familiar the out-of-town participants were with Miami. Prior literature suggests that the overall familiarity with a destination will have an impact on how a consumer spends money (Wang, 2004). Without this information, determining the effect of familiarity with the destination cannot be assessed. Second, regarding the data collection, information concerning where participants traveled from was inconsistent from year to year, and as such, analysis that took the distance of travel into account was unable to be conducted. This information could potentially inform as to spending differences. Lastly, while a significant difference emerged between one-off participants and repeat participants, no behavioral or attitudinal measures were collected that could explain the driving force in the difference in spending. While future intention to participate may be a cause for this difference, it cannot solely be attributed to it.

Further, the ability to study different MPSE events (i.e., triathlons, cycling races) in the same manner would help bolster the generalizability of the findings. In addition, Miami is a popular tourist destination within the United States. Examining a similar sample in a less desirable tourist destination could highlight how the overall desirability of a host destination influences overall spending. Lastly, information could be collected from both repeat and one-off participants to attempt and determine their motivations for participation. Prior research examining sporting event participation has found differences in motivations between first-time and repeat event participants (Taylor & Shankar, 2008). Further research is needed to understand the motivations of one-off participants and if they influence overall spending.

Conclusion

Sport and tourism research examining first-time visitors and participants and changes that occur during repeat years has generated conflicting results. This may stem from the fact that previous work has not tracked spending of visitors or participants through the years, instead relying on the individual's ability to recall spending from previous trips or events. By tracking an individual as they progress from year one to year two, a more accurate picture of how that transition affects spending can be viewed.

According to results from this study, there is no statistically significant change in spending from the first year to the second. This finding follows the work of Li et al. (2008) and Myburgh et al. (2014). However, it was uncovered that one-off participants spend significantly more than repeat participants in either their first or second year. Future research examining spending differences over time should collect data from multiple points in time, as close to the event as possible. By utilizing this approach, spending differences can be examined accurately and reliably and may yield further theoretical and practical implications.

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