

Predicting 4-H Program Loyalty Among Alumni

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Abstract

Providing positive experiences for consumers is a key concern for retail-based businesses, as it enables them to build loyalty within their customer base. While determinants of loyalty have been researched extensively within business contexts, little research exists examining the determinants of program loyalty within extension services more generally, nor the 4-H youth development program more specifically. The purpose of the study was to examine whether program satisfaction, number of activities, and years of program involvement influenced levels of 4-H program loyalty amongst program alumni. Descriptive statistics, Pearson correlation analysis, and multiple linear regression were used to address the study objectives. Statistically significant correlations were observed between all variables of interest. Regression analysis indicated program satisfaction and total number of activities were statistically significant, positive predictors of 4-H program loyalty and accounted for 32.1% of observed variance. These findings indicate it may be appropriate for extension programming in 4-H to ensure participants are satisfied with their experience and to offer a variety of programs with varying levels of expected involvement to accommodate more potential participants.

Introduction

As a social program and public good, the extension system relies heavily on public investment. Given the inherent uncertainty surrounding its potential contributions and the growing demand for accountability from policymakers and funding bodies, it is essential that these programs undergo thorough and reliable evaluation (Faure et al., 2012; Klerkx et al., 2016; Knook et al., 2018; Kook et al., 2020; Salehi et al., 2021; Suvedi & Stoep, 2016). Therefore, evaluation has become increasingly critical in extension due to several converging factors. First, the evolving nature of extension demands ongoing assessment to ensure relevance and effectiveness. Additionally, budget constraints necessitate the justification of expenses, and an emphasis on accountability for program funding underscores the importance of rigorous evaluation (Dart et al., 1998). This need for robust evaluation not only ensures effective resource allocation but also enhances program efficiency and impact by identifying areas for improvement and demonstrating value to stakeholders. Extension provides valuable insights into the broad societal impact of these programs (Ogundari, 2022). Through comprehensive assessment, extension programs can more effectively demonstrate their value, address service gaps, and enhance their contributions to agricultural advancement, community well-being, and beyond. One common evaluation approach is assessing customer satisfaction and loyalty, which is crucial for organizations of all kinds (Yazdanpanah & Feyzabad, 2017). Satisfied customers significantly benefit an organization's performance and, even more so, enhance its public image.

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When customers are pleased with their experience, they are more likely to share positive feedback with others. As a result, organizations invest considerable effort in evaluating customer satisfaction levels to foster loyalty and build a positive reputation (Ganpat et al., 2014).

Many organizations use customer satisfaction as a performance indicator, embedding it within their mission statements and leveraging it as a source of competitive advantage (Spiteri & Dion, 2004). Satisfaction offers a measurable parameter that informs managers, policymakers, and other stakeholders about the customers' perspectives on services received, providing a key indicator of an organization's performance and effectiveness (Gomez et al., 2004). Additionally, customer loyalty has been a central goal of marketing strategies for decades, offering lasting value beyond one-time engagements, purchases, or events (Knox & Walker, 2001). Loyalty is defined as customers' positive association with a brand and is demonstrated through repeated engagement (such as purchases). Loyalty builds over time through positive experiences and emotional connections with organizations and their associated brand (Andjelic, 2021; Maheshwari et al., 2014). Loyalty enhances retention, boosting profitability (Hsu, 2008). Loyalty often extends beyond brands, reflecting a strong attachment and cooperative relationship with specific organizations (Fielder, 1992). Organizational loyalty is central in sustaining long-term relationships and supporting the ongoing success of an organization. Thus, customer satisfaction and loyalty, when properly evaluated and fostered, offer invaluable insights and advantages, enhancing both organizational outcomes and the effectiveness of social programs (Rouzaneh et al., 2021; Yazdanpanah et al., 2013).

Extension delivers a range of programs, including educational workshops, youth initiatives, and other outreach efforts, aimed at reaching a diverse and broad audience of stakeholders, including farmers, youth, and community members. Given the increasing challenges, understanding what fosters satisfaction and loyalty among stakeholders is crucial (Ao et al., 2017; Yazdanpanah & Feyzabad, 2017). While extension's role has been emphasized as vital to supporting sustainable agricultural practices, the demand for these services has gradually declined (Leeuwis, 2013). This trend underscores the importance of evaluating extension's impact and relevance in addressing both longstanding and emerging issues in agriculture and communities (Lamm et al., 2020). By assessing what makes stakeholders feel satisfied and engaged with extension, policymakers and program developers can refine extension services to better meet the evolving needs of diverse stakeholder groups (Dehghanpour et al., 2022; Yazdanpanah & Feyzabad, 2017).

Although scholars have investigated satisfaction and loyalty regarding different aspects of the extension, to the best of our knowledge, no study has specifically examined youth satisfaction and loyalty concerning the 4-H program. Youth represent an important group that extension continually aims to reach and engage (Lerner & Lerner, 2013). With respect to youth, previous research has demonstrated how the development of preferences and loyalties to brands and organizations during adolescence is likely to be maintained into adulthood (Moschis et al., 1984). For this study, determinants of brand loyalty to a statewide 4-H program were examined. The 4-H youth development program is offered through Georgia branch of the Cooperative Extension Service (University of Georgia, n.d.) and impacts over 240,000 youth each year. The Georgia 4-H program is one of the largest 4-H programs in the United States (Georgia 4-H, n.d.).

Literature supports the idea that 4-H'ers join the organization due to a sense of intrinsic motivation (Putnam et al., 2018). Furthermore, it is well-documented that 4-H membership has a lasting positive impact on youth members (Agans et al., 2020; Kock et al., 2015; Ladewig & Thomas, 1987; Merten et al., 2014; Powell et al., 2021a). Previous research has demonstrated how youth involvement in 4-H has resulted in leadership development (Deen et al., 2017; Leff et al., 2015; Radhakrishna & Sinasky, 2005), a positive self-concept (SeEVERS et al., 2011), career development (Cowan et al., 2018), meaningful relationships with mentors and peers (Ellison & Harder, 2018; SeEVERS et al., 2011), and technical skills through experiential learning (Harris et al., 2016; Rusk et al., 2003).

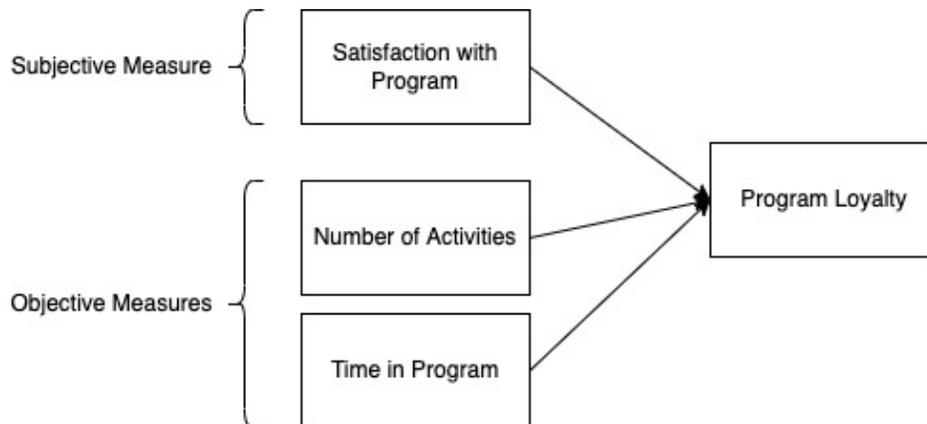
While there is extensive evidence to indicate 4-H involvement has been associated with positive participant outcomes, little research has been conducted to examine what 4-H experiences may result in increased levels of perceived 4-H program loyalty amongst alumni. The present study addresses this gap in the literature and examines which factors associated with 4-H participation may lead to increased levels of perceived 4-H program loyalty.

Conceptual Framework

The conceptual framework for the current study is rooted in customer satisfaction indexes. These indices were initially developed from a marketing perspective (Fornell, 1992) and have since been widely adopted across a range of social science contexts (Johnson et al., 2001). Over time, satisfaction inventories have become important tools for evaluating consumer satisfaction and loyalty, offering insights that are valuable not only in business contexts but also for understanding satisfaction within social programs (see Anderson & Fornell, 2000; Johnson et al., 2001). Specifically, the customer satisfaction index served as the conceptual foundation for the study, focusing on three hypothesized predictors of loyalty to the 4-H program. A visual representation of the conceptual framework is provided in Figure 1. Specifically, the framework includes one subjective measure: satisfaction with the program, and two objective measures: (1) total number of program activities (number of activities) and (2) total years of involvement (time in program).

Figure 1

Predicting 4-H Program Loyalty Conceptual Framework



Satisfaction with Program

In contemporary satisfaction models, the primary relationship centers on the connection between satisfaction and loyalty, where loyalty serves as the outcome variable of interest. Program satisfaction has been defined as an individual's feeling of contentment due to participation in a program and perception of the program's ability to meet the individual's needs (Gauthier, 1987). Satisfaction is often viewed as a key predictor of customer loyalty (Johnson et al., 2001). Models such as the Expectation-Confirmation Theory and the American Customer Satisfaction Index emphasize that satisfaction levels significantly influence loyalty outcomes, with higher satisfaction often leading to stronger loyalty behaviors (Fornell et al., 1996; Oliver, 1999). Satisfaction is an important consideration in youth programming because it may be a predictor of member participation and retention (Worker, 2014). In the current study, perceived

program satisfaction was defined as how individuals evaluate their experience with a program based on subjective factors, including expectations and perceived benefits (Worker, 2014). Previous research found that one of the primary reasons for continued enrollment in a 4-H club was satisfaction with what the program offered and the benefits of the program (Defore et al., 2011).

Within the literature, there have been several factors that have been identified as contributing to youth member satisfaction with 4-H, including positive parental involvement, high-quality club meetings, and feelings of commitment and responsibility (Norland & Bennett, 1993; Wingenbach et al., 1999). Additionally, Worker (2014) found that the youth members' development of competency during a 4-H state leadership conference consistently predicted satisfaction. Respect from adults also contributed to members' development of personal agency, which subsequently predicted satisfaction (Worker, 2014). These results align with Wingenbach et al. (1999), who posited that the feelings and responsibility a 4-H member receives from an experience may be more important than the actual experience in terms of program satisfaction.

Conversely, Norland and Bennett (1993) found member dissatisfaction with 4-H to be associated with individuals quitting the program. The researchers suggest, program satisfaction may be dependent on the design of 4-H programs in general, not limited to specific activities. Harrington et al. (2011) found that 47% of youth members left 4-H because they lost interest or became involved in other activities. Similarly, Hood et al. (2023) found a lack of communication about offerings contributed to member disengagement, which ultimately led to program dropout. This suggests that, beyond program design and competing activities, effective communication plays a crucial role in retaining 4-H members. Hence, our first hypothesis, **H1**: Higher perceived satisfaction with the 4-H program positively influences loyalty to the program amongst alumni.

Number of Activities

In the marketing literature, particularly related to loyalty, evidence suggests that individuals who engage with a greater number of an organization's products or activities tend to be more loyal to the organization. This relationship is rooted in the perspective that increased engagement deepens the individual's connection to a brand, enhances their satisfaction, and ultimately fosters loyalty (Oliver, 1999; Reichheld & Schefter, 2000). The Georgia 4-H program offers a variety of leadership, service, and learning activities for youth members, which include club meetings, project achievements, state congress, national congress, summer camp, Fall Forum, state conferences, and state council (Georgia 4-H, n.d.). Alumni from the Georgia 4-H program previously identified such activities as strengths of the 4-H program (Powell et al., 2021b). Previous research has indicated a generally positive relationship between participation in 4-H activities and satisfaction with the program. For example, Digby and Ferrari (2005) reported that 4-H members who had higher levels of participation in program activities also reported higher levels of satisfaction regarding their 4-H experience. Additionally, a survey of 4-H participants found members were more likely to continue their involvement in 4-H if they participated in specific leadership activities such as holding an officer position, helping to teach youth, and/or participating in a fair (SeEVERS & Dormody, 1994).

Rusk et al. (2003) found that 4-H youth members who participated in more, or higher-level, livestock fairs were also more likely to continue participating in 4-H than those who competed in fewer, or lower-level, fairs. Members with increased levels of participation in 4-H have reported feeling increased levels of belonging and inclusiveness, which may, in turn, encourage continued involvement in the program (Hensley et al., 2007). Hence, our second hypothesis, **H2**: The number of activities individuals engage in within the 4-H program positively influences their loyalty to the program.

Time in the Program

Numerous studies have confirmed a positive relationship between the length of time an individual engages with an organization or program and their loyalty toward it. This relationship is based on the premise that longer engagement fosters familiarity, trust, and a deeper emotional connection, which in turn increases loyalty (Liu, 2007). The connection between duration and loyalty is considered a key factor in loyalty-building strategies across various fields. Previous research has hypothesized that the amount of time individuals spend on a task or skill may influence their level of dedication and proficiency (Hill, 2013; Omahen, 2009; Wong, 2015). There is mixed consensus regarding the length of time youth members need to participate in 4-H to experience such benefits. At a fundamental level, previous research has found that both short-term and long-term participation in 4-H may be sufficient to elicit positive youth outcomes (Allen & Lohman, 2016; Lerner & Lerner, 2013). However, other research suggests it is more important for youth to be involved in youth development programs at a consistent level for a prolonged period of time to accrue benefits (Harrington et al., 2011), with sustained engagement leading to more positive outcomes than infrequent or casual participation (Ferrari & Turner, 2006; Miller, 2003; Weiss et al., 2005).

Within a 4-H context, researchers found that the longer an individual was involved in 4-H, the more likely the individual would continue to be involved (Norland & Bennett, 1993). However, other researchers have found that participating in 4-H can sometimes be perceived as time-consuming and conflicting with participants' desires to seek out other extracurricular activities (Albright & Ferrari, 2010). These factors may affect the length of time that an individual is able to participate in 4-H programs or activities (Ellison & Harder, 2018; Nutt, 2008). Therefore, our third hypothesis, **H3**: The length of involvement in the 4-H program positively influences loyalty to the program.

Purpose and Objectives

The purpose of this study was to examine the relationship between program satisfaction, total years of involvement, total number of activities, and 4-H program loyalty among program alumni. This study was motivated by the following research objectives:

1. Describe levels of perceived program satisfaction amongst 4-H alumni.
2. Describe the average number of program activities undertaken by 4-H alumni.
3. Describe the average number of years of program involvement by 4-H alumni.
4. Describe levels of 4-H program loyalty amongst 4-H alumni.
5. Examine the relationship between program satisfaction, total number of activities, total number of years, and 4-H program loyalty.
6. Examine the predictive relationship of program satisfaction, total number of activities, and total number of years in the 4-H program loyalty.

Methods

The population of interest for this study was alumni of the Georgia 4-H program. To address the six research objectives, a descriptive and correlational research design was employed.

Population and Data Collection. A database of 4-H program alumni, along with email addresses, was provided to the research team by the state 4-H administrative office. The provided database represented a convenience sample of 4-H alumni. A total of 1,418 contacts were provided in the database. Data were collected using an online questionnaire distributed through the Qualtrics online survey platform. Respondents were contacted using the Tailored Design Method (Dillman et al., 2008). The process included a pre-notice message sent to potential respondents by the state 4-H program director. Next, an invitation to complete the survey was sent to potential respondents within three days. A minimum of four

reminder messages were sent to potential respondents. A total of 480 responses were obtained, representing a 38% response rate. Of the 480 respondents, the majority, 51.7% (n = 248), self-identified as female, and 87.2% (n = 348) self-identified as White. The average age of the respondents was 34. Study data were collected as part of a larger 4-H program project, and as such, additional variables of interest were collected and independently analyzed in support of other project objectives. This disclosure and clarification regarding multiple publications from a common data set is provided based on recommendations within the literature (Kirkman & Chen, 2011).

Instrumentation. In the questionnaire, respondents were asked to self-report demographic characteristics, perceived level of satisfaction with 4-H, total years of involvement with 4-H, total number of activities in which they participated during their 4-H involvement, and perceived level of loyalty to the 4-H program. To measure the perceived level of satisfaction with 4-H, a previously established three-item satisfaction index (Cammann et al., 1983) was utilized. The scale items were adapted to fit the purpose of the study. For example, the item, “All in all, I am satisfied with my job,” was modified to “All in all, I was satisfied with my 4-H program experience.” For the current study, the satisfaction scale had an observed Cronbach’s alpha value of 0.60. Based on recommendations within the literature (George & Mallery, 2003; Nunnally & Bernstein, 1994), the internal consistency of the satisfaction scale was deemed acceptable following individual item analysis (DeVellis, 2017). Respondents rated their level of agreement with each statement using a five-point, Likert-type scale with possible answer choices ranging from 1 – Strongly Disagree to 5 – Strongly Agree. To measure the total number of activities, respondents were presented with 12 potential 4-H activity types (Powell, 2020) and asked to select all the activities they had participated in during their 4-H involvement. To measure total years of involvement with 4-H, respondents were asked to report the year they began 4-H and the year they ended 4-H involvement. Year Began was subtracted from Year Ended to compute the total years of involvement. Level of loyalty to the 4-H program was measured using a 3-item index adapted from previous research (Brakus et al., 2009). Specifically, items were reworded to better fit the context of the study. For example, the item “In the future, I will be loyal to this brand” was modified to “In the future, I will be loyal to 4-H.” A Cronbach’s alpha value of 0.89 was observed, indicating an acceptable level of internal consistency (Cortina, 1993; Schmitt, 1996; Streiner, 2003). Respondents indicated their level of agreement with each statement using a five-point, Likert-type scale with possible answer choices ranging from 1 – Strongly Disagree to 5 – Strongly Agree.

Data Analysis. The data were analyzed using SPSS v28. Descriptive statistics, including mean, standard deviation and absolute frequency counts, were computed for total years of involvement, total activities, overall level of satisfaction, and overall level of loyalty. Pearson correlations were utilized to examine the nature of the relationship between total years, total activities, satisfaction, and loyalty. Multiple linear regression analysis was conducted to examine whether total years, total activities, and satisfaction had a predictive relationship with loyalty. The hypothesized regression model (1): $loyalty = (\beta_1 * total\ years) + (\beta_2 * total\ activities) + (\beta_3 * satisfaction)$ (1)

Results

Table 1 presents the descriptive statistics for the study variables of interest, including total years of involvement, total activities, satisfaction, and loyalty.

Table 1*Study of Descriptive Statistics*

	<i>n</i>	Min	Max	<i>M</i>	<i>SD</i>
Satisfaction	405	2.00	5.00	4.71	0.52
Total Activities	453	0.00	12.00	6.59	2.65
Total Years	352	0.00	61.00	9.77	6.15
Loyalty	411	1.00	5.00	4.52	0.70

Objective One: Satisfaction with 4-H Program Experience

Respondent' level of satisfaction with their 4-H program experience was examined descriptively. Collectively, 95.6% of respondents agreed or strongly agreed that they were satisfied with their 4-H program experience, and 97.3% of respondents agreed or strongly agreed that, in general, they liked 4-H. Table 2 presents participant' reported levels of satisfaction with their 4-H program experience.

Table 2*Level of Satisfaction with 4-H Program by Percentage of Respondents*

Statement	<i>n</i>	Strongly Disagree %	Disagree %	Neither Agree nor Disagree %	Agree %	Strongly Agree %
All in all, I was satisfied with my 4-H program experience	410	1.5	1.0	2.0	18.0	77.6
In general, I didn't like my 4-H program experience (reverse coded)	409	2.9	0.5	2.2	16.6	77.8
In general, I liked 4-H	408	0.5	0.7	1.5	15.7	81.6

Objective Two: 4-H Program Activities

Respondents were asked to report which 4-H activities they had participated in during their involvement with the 4-H program. The total number of activities reported ranged from zero to 12. Overall, respondents reported being involved with an average of 6.59 activities. The 4-H activities with the highest percentages of participation were 4-H club programs (90.9%) and 4-H camps (80.5%). The lowest percentages of participation were associated with Cloverbuds (8.6%) and Citizenship Washington Focus (12.8%). Table 3 presents the absolute frequency counts and percentages of respondents by activity.

Table 3*Frequency of Respondents by Activity*

Activity	<i>n</i>	Yes		No	
		<i>f</i>	%	<i>f</i>	%
4-H club program	452	411	90.9	41	9.1
4-H camps	452	364	80.5	88	19.5
Project work	452	347	76.8	105	23.2
State conference/congress	452	330	73.0	122	27.0

After-school 4-H programs	452	303	67.0	149	33.0
In-school 4-H programs	452	293	64.8	159	35.2
Judging program	452	291	60.6	161	33.5
Served as a counselor	452	168	37.2	284	62.8
National 4-H Congress	452	148	32.7	304	67.3
Collegiate 4-H	452	136	30.1	316	69.9
Citizenship Washington Focus	452	58	12.8	394	87.2
Cloverbuds	452	39	8.6	413	91.4
<i>Other</i>	452	89	19.7	363	80.3

Objective Three: Years of 4-H Program Involvement

Respondents' years of 4-H program involvement ranged from less than one to 61 years. Respondents reported an average of 9.77 years of involvement. The majority of respondents (94.0%) reported between one and 15 years of involvement with 4-H. Table 4 presents the absolute frequency counts and percentages associated with total years of 4-H program involvement. The majority of respondents had between 6 and 10 years of involvement (62.5%).

Objective Four: Levels of 4-H Program Loyalty

To address study objective four, respondents' self-reported levels of loyalty to the 4-H program were examined descriptively. Respondents reported an average loyalty score of 4.52 out of a possible 5.00. The majority of respondents (87.1%) agreed or strongly agreed that in the future they would be loyal to 4-H; 84.5% of respondents agreed or strongly agreed that they feel committed to 4-H; and 95.9% of respondents agreed or strongly agreed that they would recommend 4-H to others. Table 5 presents participant-reported levels of 4-H program loyalty.

Table 4

Level of 4-H Program Loyalty by Percentage of Respondents

Statement	<i>n</i>	Strongly Disagree %	Disagree %	Neither Agree nor Disagree %	Agree %	Strongly Agree %
In the future, I will be loyal to 4-H	411	1.0	0.7	11.2	24.1	63.0
I feel committed to 4-H	412	1.5	2.9	11.2	26.0	58.5
I will recommend 4-H to others	412	0.7	0.7	2.7	18.0	77.9

Objective Five: Relationship between Satisfaction, Total Activities, Total Years, and Loyalty

Pearson correlations were computed to examine the relationships between 4-H program satisfaction, total activities, total years of 4-H involvement, and loyalty. Table 6 presents the correlation coefficients and statistical significance between variables. Statistically significant relationships were observed between all study variables. The magnitude of observed correlations ranged from negligible to moderate (Davis, 1971).

Table 5

Intercorrelations Between Loyalty, Satisfaction, Total Activities, and Total Years of 4-H Program Involvement

	1	2	3	4
1. Loyalty	-			
2. Satisfaction	.566**	-		
3. Total Activities	.260**	.298**	-	
4. Total Years	.114*	.125*	.335**	-

Note: * $p < .05$; ** $p < .01$

Objective Six: Satisfaction, Total Activities, and Total Years Predicting Loyalty

Multiple linear regression analysis was conducted to determine whether satisfaction, total activities, and total years of 4-H program involvement had a predictive relationship with 4-H program loyalty. Satisfaction, total activities, and total years of 4-H program involvement were considered independent variables, while loyalty was treated as the dependent variable. Table 7 presents the results from the multiple linear regression analysis. According to the analysis, the hypothesized regression model explained 32.1% of the variance in 4-H program loyalty. Additionally, the omnibus model was found to be statistically significant ($F[3, 343] = 54.163, p < .001$). Satisfaction ($t = 10.915, p < .001$) and total activities ($t = 2.347, p = .020$) were found to be statistically significant positive predictors of 4-H program loyalty. These results revealed that the first and second hypotheses were confirmed, while the third hypothesis was rejected.

Table 6

Multiple Regression of Loyalty on Satisfaction, Total Activities, and Total Years of 4-H Program Involvement

Variable	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t</i>	<i>P</i>
Model	.567	.321				
Constant			.915		3.182**	.002
Satisfaction			.704	.515	10.915**	<.001
Total Activities			.037	.117	2.347*	.020
Total Years			.001	.008	.178	.859

Note: * $p < .05$; ** $p < .01$

Conclusion, Discussion, and Implications

Examining which factors may influence 4-H alumni loyalty to the 4-H program is important as these results may help to inform programmatic choices, which may in turn facilitate increased programmatic loyalty amongst current 4-H members (Moschis et al., 1984). The purpose of the present study was to examine how program satisfaction, activities, and years of program involvement influence loyalty to the 4-H program. At a composite level, the three independent variables (satisfaction, total activities, and total years of 4-H involvement) all had statistically significant, positive correlations with 4-H program loyalty. Upon further multiple linear regression analysis, satisfaction and total activities were found to be statistically significant, positive predictors of 4-H program loyalty. Total years of 4-H program involvement were not observed to be a statistically significant predictor of 4-H program loyalty.

Loyalty and Satisfaction

Examining members' satisfaction with a program is an integral part of program evaluation (Worker, 2014). Participant satisfaction was observed to have the largest impact of 4-H program loyalty. Within the present study, 4-H program satisfaction was found to be a statistically significant, positive predictor of 4-H program loyalty. This finding may imply that improving 4-H members' perceptions of their program satisfaction may increase their feelings of loyalty to the 4-H program. Although this observation may be somewhat intuitive in nature, there are numerous factors that may all contribute to member satisfaction. Previous research has found high high-quality club meetings, high levels of responsibility and commitment, parental support, sense of belonging, and time with friends can all influence 4-H program satisfaction (Defore et al., 2011; Ferrari & Turner, 2006; Gill et al., 2010; Norland & Bennett, 1993). From a practical perspective, a recommendation would be to implement periodic, informal evaluations during 4-H club meetings or other sponsored 4-H activities as a way to collect constructive feedback related to members' satisfaction and perception of 4-H activities and overall experience (Lamm et al., 2020).

Loyalty and Program Activities

Youth participation in 4-H precipitates positive benefits for participants themselves as well as their communities (Bartoszuk & Randall, 2011). The majority of respondents in the present study participated in multiple activities during their involvement with 4-H, with the most popular activities including: club programs, camps, project work, state conference/congress, after-school and in-school programs, and judging programs. The total number of activities a member participated in during 4-H was observed to have a positive effect on 4-H program loyalty. Generally, it is well established that an individual who engages with a larger number of products and activities from an organization is considered to be more loyal to that organization (Oliver, 1999; Reichheld & Schefer, 2000). However, despite the observed positive relationship between activities and loyalty, there are several practical considerations to consider. Barriers may exist that prevent members from being involved in multiple 4-H activities, including finite time and resources. For example, previous research has found financial costs associated with participation in some 4-H events or activities (e.g., registration fees for state events) may hinder participation (Gill et al., 2010). Additionally, participant involvement with other extracurricular activities or part-time employment may limit 4-H participation (Ellison & Harder, 2018; Gill, 2008). Based on the study results, a recommendation is for 4-H educators to consider employing short-term project experiences or promoting short-term activities like camps or conferences (Ellison & Harder, 2018). Offering short-term experiences allows "youth to try new things without feeling obligated to commit" (Ellison & Harder, 2018, p. 157). Additionally, a recommendation is for 4-H educators to consider supplemental funding support to allay some of the structural barriers to participation and ensure opportunities are available to potential participants, particularly for activities that require a registration fee (Gill et al., 2010). From a practical perspective, a recommendation would be for 4-H program leaders to consider offering and promoting meaningful, short-term experiences (such as conferences or weekend programs) to appeal to students who cannot commit to long-term projects or leadership positions. Whether an individual is involved for six months or 60 years, a recommendation is for 4-H programming to be structured in such a way as to offer a welcoming and meaningful atmosphere where members are treated with respect and given the opportunity to explore activities that promote individually valued learning outcomes (Worker, 2014).

Loyalty and Years of 4-H Program Involvement

A notable finding is that the total number of years members were involved in 4-H did not have a statistically significant effect on 4-H program loyalty. In the engagement and loyalty literature, a relationship is frequently observed between the length of the relationship between an individual and an organization and loyalty (Gomez et al., 2004). The result from the present study provides a contrarian

finding and a unique perspective. When analyzed using correlational analysis a statistically significant relationship between duration and loyalty was observed; however, based on regression analysis and the simultaneous consideration of program satisfaction and program activities, the statistically significant relationship was no longer observed. This finding may indicate that the effect of duration and incremental variance predicted by the variable was mediated by the other study variables. An associated recommendation would be to replicate the current study using a qualitative perspective, specifically examining whether the observations from the study are a result of variable mediation, or if duration does not have a meaningful effect on 4-H program loyalty.

Limitations

The current study was intended to provide empirical insights regarding loyalty to the 4-H program amongst alumni; however, there are several limitations that should be acknowledged. First, results for the study are limited to the study respondents and should not be considered applicable to all contexts. The study may serve as a benchmark for future research; however, the applicability of recommendations should be used with caution. Second, the variables included in the study could have been more robust. For example, the observed Cronbach's alpha value associated with the satisfaction index was below the .70 threshold generally associated with social science research (Cortina, 1993; Schmitt, 1996; Streiner, 2003). A recommendation would be to replicate the study using an alternative measure of satisfaction. Furthermore, the activity and duration variables were limited to either the items presented (activities) or to participants' recollection (duration). A recommendation for future research would be to consider the use of objective quantitative measures, such as programmatic records, which may provide a more robust measure for analysis. Furthermore, we recommend that future research in this field utilize a comprehensive satisfaction index, such as the American Customer Satisfaction Index (Fornell et al., 1996). Doing so may yield significant theoretical and practical contributions to the understanding of the 4-H program specifically, as well as the entire extension system as a whole.

Conclusions

Extension services are under persistent pressure to demonstrate value to participants and other stakeholders. Evaluating participant experiences, such as satisfaction and loyalty, therefore has the potential to establish the value and benefit of the extension program for stakeholders (Ao et al., 2017). An important stakeholder audience includes individuals who participate in extension programs like 4-H. For many, 4-H has the potential to serve as the entry point for a long-term relationship with extension through future life stages (Ellison & Harder, 2018). Empirically analyzing and establishing which experiences have the most robust association with program loyalty may therefore have the potential to help inform extension program priorities and efforts.

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