Evaluation of Computer

Hardware and Software

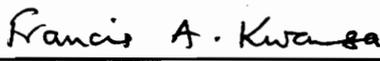in the Private Country Club Sector

of Virginia

by

David Thomas Kincaid

Thesis submitted to the faculty of Virginia Tech

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of

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in

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Approved:

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(ABSTRACT)

The world has seen incredible changes in recent years, and the most notable has been the introduction of computers into our society. One industry that has greatly benefited from the use of computers in their field has been the hospitality industry. The country club sector is one area of the hospitality industry that has been greatly improved through the use of computers. This study evaluated the software and hardware for private country clubs, and related that to the usage of these products by the private country clubs in Virginia.

The study utilized a survey to investigate the types of and methods by which computers have impacted these country clubs. The survey's results were offered to each country club that was surveyed, for their usage in whatever manner they find helpful.

The results of the study indicated that computer usage in larger private country clubs in Virginia is greater than smaller country clubs. This indicates from the point of view of efficiency that the larger country clubs with more members utilized more computer applications to run these facilities. The country clubs in Virginia have demonstrated by the survey results an interest and concern for what computers can do for them in their operations. The key to moving forward in any industry is to understand that something you can purchase can give you the ability to improve. The expense of computer systems is a valid obstacle, but the need for computer efficiency gives the purchase of a computer system a high priority in the world of future expenditures.

DEDICATION

This paper could never have been completed without the help of many people. The following is a list of individuals I would like to thank for their contributions to my thesis.

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Chapter 1

Introduction

Introduction

The world is growing at a rapid pace, and with it, technology is growing quickly as well. The improvements and conveniences that technology can provide to users today are immense. The hospitality industry in general has been an area for which computer companies have created many products. These products are available for use in many different sectors of the hospitality industry. The country club sector is one area in which computers can greatly improve the functioning of the operations at these facilities. This study was being done to evaluate the usage of this technology, both computer hardware and software, by the private country clubs in Virginia.

Justification

This researcher would, in the future, like to create a greater awareness within the private country club sector that there is a large variety of computer hardware and software available for their use. The first step is to assess what is currently being used in the industry. Progress in the industry's usage of computers can not be made without first assessing current usage.

Purpose

The purpose of this study was to evaluate the present

computer hardware and software usage in the private country
clubs in Virginia. The study inquired into country clubs'
uses of computers, including the functions they serve in
their facilities. The study also investigated the factors
of membership size and location at the various country clubs
to see if these factors effect the amount or type of
computer usage in the private country clubs of Virginia.

Delimitations

The study was limited to private country clubs in
Virginia.

Significance of the Study

The study was designed to provide information that was
not previously available in the golf industry: who is using
what type of computer equipment in what settings. This
information sets the stage for future researchers to develop
methods to improve the awareness of computer usage in the
private country clubs in Virginia. In the long run, there
may be improved management services to better serve their
members.

Summary

The country club sector has undergone many changes over
the years that golf has existed in the U.S., but the
greatest technological change thus far has been the
introduction of computers. It is important to assess the
current computer usage in the private country club sector.

Chapter 2

Review of Literature

History of Golf in the U.S.

The first recorded date that the game of golf was ever attempted in the U.S. was in February, 1888 on Washington's Birthday at Yonkers, New York (Peper, McMillan, & Frank, 1988). The men that began the game that day were just experimenting. There was great unrest in America during the 1870's and 1880's; it was called the dark ages of America (Peper et al., 1988).

The game of golf had many things working against its growth in the United States, but the game took off in the 1890's. John Reid is known as the Father of American Golf (Peper et al., 1988). John Reid was introduced to the game by Robert Lockhart in February of 1888. The game grew as John Reid began to get his friends involved in the game. As more people became interested in playing golf with John Reid, they moved to larger fields and created more golf holes.

By 1894 the first clubhouse had been established by John Reid and his golfing companions (Peper et al., 1988). The game continued to grow at a rapid pace and by 1900 there were more than one thousand private and public golf courses in America. Golf had become a game for all people to play, both the wealthy and the not so rich. The game expanded in

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all areas including the expertise of the professionals ("golf pros") and the elaborateness of the courses and clubhouses.

The game of golf is a very competitive sport, and this provided the opportunity for the best golfers in the country to come together for tournament play. The increased tournament play created the need to regulate the game and the United States Golf Association was created. The United States Golf Association was the governing body of golf in the United States, and the Royal and Ancient Golf Club of St. Andrews was the governing body of golf in Europe (Peper et al., 1988). Over the years as golf grew more and more popular, the two governing bodies jointly pulled together their resources to make unified rules, regulations, and decisions concerning any issue dealing with the sport of golf.

Magazines and press coverage grew with the game. The game could not have been so popular, if there had not been so many great players who played the game and made it glamorous (Peper et al., 1988). Golf in the United States became a sport for people of all backgrounds. Women, children and men enjoyed golf, and this is one reason for the incredibly rapid expansion of golf courses in America. It was a game the whole family could play. The sport of golf was even played by famous figures in our society,

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including President William Howard Taft and Allan Shepard (Moss, 1993).

History of Country Clubs in Golf

The emergence of country clubs where golf is played did not take off until the early years after World War I (Hohol, 1973). The country club represented a place for the sport's history to evolve. It was the advent of machinery that allowed the country club to become a privilege for people of all backgrounds, not just the wealthy. Just as the game of golf first began as a game for the rich, so did the country club sector. The economy was improving, and so were society's attitudes. Country clubs represented many things to many people. They provided an atmosphere for people with similar interests to get together for any of the following: status; sports appeal; social and business interaction; opportunity for gambling; an activity suitable for adults and adolescents of both sexes; and a means by which the amateur characteristics of the game can be retained (Hohol, 1973). The country club was associated very early with the image of exclusiveness, and strongly associated with many of the elite people in our society (Moss, 1993).

The golf industry slowed down during the depression years, but once again took off even stronger after World War II (Hohol, 1973). These are the years that the country club sector began improving services for their members and

guests. The management of country clubs improved as well,
so much so that the Club Managers Association was formed
(Hohol, 1973). Country clubs became a specialize area of
the hospitality industry and have continued growing to the
present day.

The computer age hit the country club sector shortly
after the hospitality industry was starting to use this
resource. In the beginning, the computer was just a toy.
However, as time passed, computers became more
sophisticated. The computer industry realized how they
could specialize their software and hardware products and
make money selling them to different kinds of businesses.
This realization resulted in the development of specialized
computer companies beginnings all over the world to meet the
needs of these many specialized groups.

Computer Usage in "Sister" Facilities

Computers have influenced all areas of the hospitality
industry. Some sectors of the hospitality industry that are
similar to the private country club sector and have seen a
great impact from the computer industry are health clubs and
hotels. Each of these sectors of the hospitality industry
has helped the computer industry improve their products to
the point where computers have become a viable option for
private country clubs.

The health club sector is one area of the hospitality

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industry that is similar in many ways to country clubs. Computer companies have found this niche to be very profitable, and have invested money in the development of computer hardware and software packages that will meet the needs of these special groups. The steps that many health clubs use to decide which computer systems and companies are right for them is a logical, detailed process.

The first level is to decide on a list of goals that you can use to determine what needs you have for a computer system (Mann, 1993). The second level is to decide on the specific features that you desire to meet the above stated goals (Mann, 1993). The third level is to contact various computer companies that have software and hardware packages that meet, at least to some degree, the goals and features that you desire. Once information on a computer company is gathered, then an investigation of the manner in which these system's operate can be investigated. An alternative is for the company to present a demonstration.

The fourth level is purchase of the computer package (Mann, 1993). The decision to purchase should be taken very carefully. The purchaser must look at the expansion of the computer package as well as the cost considerations which the club faces. The final consideration should include choosing a company that is willing and able to help with set-up, operational questions and any problems that may

occur. The intelligent customer investigates the experiences of other clubs in which the computer company already has a system in operation.

The hotel sector was one of the first areas of the hospitality industry to start using computers and has increased their usage over the recent years. Computers have been proven to be an effective method to serve customers in hotels. The Hyatt Hotels Corporation has been using computers for quite a few years. The Hyatt Hotels Corporation has been pleased with their computer systems and the systems are being up-graded in their facilities (Kerr, 1993). The savings to the Hyatt Hotels corporation from the utilization of computer systems over the years has made the investment worthwhile (Kafalas, 1993). The Ritz-Carlton Hotel is another example of a hotel company that is profiting from the improved efficiency of computers in their operations. Ritz-Carlton Hotel believes that to have improved quality and service there must be improved operation technology (King, 1993).

Available Systems

There is a wide variety of computer companies available from which country club managers can choose before making a purchase of a computer system in Virginia. The options of the different computer systems vary greatly. The key is to investigate the computer companies and systems very

carefully before making any precipitous decisions. The following computer companies are just a few of the companies that offer computer packages to country clubs in the state of Virginia. These companies' addresses and telephone numbers can be obtained from the National Golf Foundation (N.G.F., 1994).

The first company, and the largest in the nation, is Country Club Systems, Inc. (Country Club Systems, 1993). This company offers diversified programs. The computer services this company offers include: membership billing; activity tracking; accounts receivable with complete membership information and profiling system; general ledger with budgets and complete financial reporting; accounts payable; payroll; inventory control; golf handicap system; word processing; spread sheet; fixed asset accounting; data base manager and report generator; event scheduling; pro shop system; food and beverage management Point-Of-Sale (POS); full integrated time clock; purchase order system; front desk and room reservation system; and catering or banquet scheduling (Country Club Systems, 1993). The list of services indicates the ways in which this company can meet the needs of a variety of different situations at various facilities. Country Club Systems has a large staff that is located throughout the United States and Canada to serve their customers. In addition, this company will

initialize the system, train staff, and trouble shoot any problems that may occur at anytime of the year.

The next company, and the second largest in the nation is Diamond Management Systems, Inc. (Diamond Management Systems, 1993). This company offers a very complete computer package as well. The following is a list of the available computer services through this company: accounts payable; general ledger; member billing; POS; banquet billing; pro shop; and data manager. Diamond Management Systems is highly rated by its customers for their initial set-up and trouble shooting services. This system seems to allow many different options to be made in each area of the club facility.

Another company is Smyth Business Systems, Inc. Smyth Business Systems provides a variety of options to its customers. The Imager II is the computer system with software that this company offers to country clubs. The following is a list of the services that this company has available through their Imager II system: accounts receivable; member profile; pro shop merchandise inventory management; pro shop POS; customer marketing and profiling; tournament management; handicapping; scheduling control; purchase order management; grounds management; tee-time scheduling; food and beverage POS; ad hoc report and display writer; shaft labels; hotel front desk interface; tournament

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prize accounting; golf cart management; salesperson productivity; bar coding and scanning of merchandise; revenue analysis; U.S.G.A. - GHIN interface; accounts payable; computer generated ticketing of merchandise; cart labels; prize certificate accounting; general ledger; payroll; fixed asset accounting; word processing; spread sheet; and special packages for special needs (Smyth Business Systems, 1993).

The fourth company is Handicomp, Inc. This company has offices across the nation in twenty-five different sales areas (Handicomp, 1993). The follow services are offered by this company: membership profiles; accounts receivable; POS interfaces; food and beverages inventory; retail inventory; report writer; word processing/mail merger; accounts payable; payroll; general ledger; reservations and tee times; golfer sign-in; handicaps; and tournaments. This company also states that they are very user friendly concerning initial set-up and trouble shooting down the line.

<u>Summary</u>

The golf industry has grown by leaps and bounds since its start here in America, a little over a hundred years ago. One of the keys to this rapid growth of the golf industry has been the country club sector. It has provided a location for people to gather, and play the sport they

have come to love. It is no small statement to say that the country club sector of the hospitality industry has improved greatly over these same years. The country club sector has become an area of technological innovation. The computer companies have created a large variety of products for country clubs, and will continue to do so for many years to come. Country club owners and managers are beginning to grasp how computer products can and will improve their operations and services for their members and guests. The managers of tomorrow will have even more options available to them, if they are only wise enough to take advantage of these opportunities.

Chapter 3

Methodology

Purpose

The purpose of this study is to evaluate the current usage of computer hardware and software at private country clubs in Virginia. This study differentiates between the location and size of the clubs and the focus of computer usage at the different country clubs.

Procedure

The above factors were measured through the use of a survey. The survey was sent to every private country club in Virginia. The use of a mail survey in this situation was the most cost efficient option available to the researcher.

The first step was to develop the survey instrument. The instrument consisted of eighteen questions (Appendix A). The questions covered a variety of topics. The survey was intended to evaluate the size and location of the club, geographic course information, and to review responses to a series of questions concerning the usage of computer hardware and software in the different areas of the country clubs.

Once the survey had been developed, a list of the private country clubs in Virginia was compiled. This was accomplished by contacting the Middle Atlantic Professional Golf Association (M.A.P.G.A., 1993). They used their

available resources to create this list of private country clubs. The list was used in distributing the surveys to the country clubs.

The next stage was to send out twelve sample surveys. A cover letter was created (Appendix B). These were used to evaluate the survey's effectiveness and appropriateness. The problem experienced with the sample surveys was a lack of response. A follow-up post card was developed and mailed approximately two weeks after the initial mailing (Appendix C). In addition, a follow-up letter was created and mailed out two weeks following the post card with an additional survey (Appendix D).

Sampling

The quantity of country clubs to be surveyed were evaluated to determine a sample size. It was decided that the number surveyed would include all the private country clubs in Virginia. The representative nature of the results would be as high as possible utilizing this methodology. The number of known private country clubs in Virginia surveyed was one hundred and twenty-three.

The surveys were mailed to the managers of the private country clubs. Each envelope included: a stamped return envelope; a survey; and a cover letter. The survey required less than ten minutes to complete. Approximately two weeks after the initial survey was mailed, the researcher sent a

follow-up post card to serve as a reminder to the country club managers to fill out the initial survey (Dillman, 1978). Finally a follow-up letter and an additional survey were sent to the respondents two weeks following the post card reminder (Dillman, 1978).

Design

The study used descriptive statistics to analyze the survey data. The survey's results were tabulated with the statistical program Number Cruncher. The number of computer applications present at the country clubs were utilized to represent computer usage at those facilities operational areas. The computer applications were found in questions 9-15. The survey data was entered and the following statistical tests were run on the raw data: cross tab, pearson-product moment correlation, one-way ANOVA, and post-hoc tests. The first step was to run a cross tab on the survey data to gain a basic descriptive analysis of all the questions on the survey. This test allowed for the frequency counts for each question to be easily read and evaluated. The second step in running the statistical tests was to determine if there was a relationship between membership size and total computer usage in the private country clubs. A pearson-product moment correlation analysis was run on the membership size categories compared to the total computer usage at the various private country

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clubs. A resulting r value of 0.4 to 0.6 or above indicates that a significant relationship exists.

The next analysis was to compare different membership size categories to "how extensively" the private country clubs use computers. This was accomplished by using an one-way ANOVA test, using membership size as the independent variable and the total usage column as the dependent variable. After the one-way ANOVA had been run, if the probability level was below .05 then that indicated a significant difference did exist among the different membership sizes and their computer usage.

The author utilized a post-hoc comparison or test to see where the differences exist. A Fisher's LSD and a Duncans test were both run on the results. The post-hoc comparisons were used to identify if there was any significant difference existing between the different membership size categories. It was expected that the results would indicate a lesser usage of computers in smaller country clubs than in larger country clubs.

The data were then reviewed to determine in what geographic areas (city, rural, or suburbs) computers are used most. This aided in determining if geographical settings affect membership size and thus purchase of computer systems. This was done by running an one-way ANOVA on the geographical setting, which was the independent

variable, compared to the total computer usage column, which was the dependent variable.

Summary

The methodology laid in this chapter describes the study from start to finish. The beginning of the chapter discusses the purpose of the study. The chapter continues by describing the various stages of the research and the chronological order that the study was conducted. The end details the procedures of how the data was analyzed for the results and discussion chapter to follow.

Chapter 4

Results and Discussion

Introduction

The following chapter provides the findings of the
study based on the statistical calculations made through the
use of the program Number Cruncher. The chapter will
provide the statistical analysis indicating the study's
validity and reliability. Some of the results are
illustrated by various tables and discussion.

Survey Return

One hundred and twenty-three surveys were mailed out
and ninety-nine of those surveys were returned. Three of
the returned surveys indicated that their country clubs had
become a public or semi-private club since the M.A.P.G.A.
had updated their mailing list. Therefore the return rate
of usable surveys was approximately 80 percent. The
following discussions of the results then are based on the
ninety-six surveys that were received with useable
responses.

Initial Results

The first analysis used cross tabulation or frequency
count. Initial analysis of the club membership sizes
indicated only one country club had less than 100 members,
therefore the membership category with the 101 to 250
members was grouped together with the less than 100 members

category. These results allowed for a more even distribution of country clubs in the different membership categories for further analysis. The break down of the different membership categories then were 18 clubs in the 1-250 members category, 37 clubs in the 251-500 members category, and 41 in the greater than 500 members category.

Question two of the survey asked for information concerning the areas the clubs were located. The results indicated 21 clubs in cities, 43 clubs in rural areas, and 32 in the suburbs. Question three questioned the number of golf holes these country clubs had at their facility. The golf hole information is as follows: 15 clubs with 9 holes, 72 clubs with 18 holes, 2 clubs with 27 holes, 3 clubs with 36 holes, 1 club with 45 holes, and 3 clubs with 54 holes. Question four(a) addressed the different numbers of full-time staff members these clubs utilized. The numbers ranged from as low as one staff member to as high as 175. Question four(b) examined the number of part-time staff members. The answers indicated that there are clubs with part-time employees ranging from one to 175 as well.

Question five was directed to the billing procedures of the country clubs. The results indicated 61 clubs with monthly billing, 19 clubs with quarterly billing, 5 clubs with semi-annually billing, and 11 clubs with annual billing. Question six examined the number of tournaments

that country clubs conducted per year, these numbers ranged from one to 250 tournaments per year. Question seven explored the familiarization of the respondents with computer applications available to them. There were 83 respondents that indicated they already knew about the available computer applications in the industry, and 13 respondents said they were not familiar. Question eight(a) asked the managers if their clubs already used a computer system or not. There were 80 clubs that indicated they presently used computer systems and 16 did not use a computer system. Questions eight(b) & (c) specifically asked the users of computer systems what kinds of hardware and software they utilized. The answers were quite varied, but the majority of the clubs utilize IBM compatible hardware. The software was also quite varied, but the majority of country clubs used software from Country Club Systems, Diamond Management Systems, and Smyth Business Systems.

Questions nine through fifteen specifically inquired into the different areas that the country clubs used their computer systems for club applications. Question nine addressed tee time scheduling: only six clubs use computers for this function. Question ten examined computer usage at clubs for tournament management: 47 clubs use computers for this purpose. Question eleven asked if clubs had a

computerized handicap system: 75 clubs used computers.
Question twelve(a) looked at club billing systems: 74 used
a computer system. Question twelve(b) inquired as to clubs'
usage of computers in their pro-shop and food service in
order to provide a central billing system: 37 clubs used
computers. Question thirteen examined the ordering and
receiving of inventory at clubs: 26 clubs used computers.
Question fourteen questioned the course superintendents'
usage of a computer system: 36 clubs used computers.
Question fifteen looked at the clubs' staffing and payroll
procedures: 65 clubs used computers. The next analysis of
the survey was to total the computer usage of the various
different computer usages for a complete number of computer
applications at each club. The findings are:

- 4 clubs with a total of 2 applications;

- 11 clubs with a total of 3 applications;

- 27 clubs with a total of 4 applications;

- 14 clubs with a total of 5 applications;

- 17 clubs with a total of 6 applications;

- 5 clubs with a total of 7 applications; and

- 1 club with a total of 8 applications.

Question sixteen looked at the clubs' intention to
increase the amount of their computer usage: 60 clubs
intended to increase their usage. Question seventeen
examined the surveys' effectiveness in improving awareness

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to the country club industry: 22 clubs had gained insight from the survey's questions. Question eighteen asked the clubs whether or not they desired a copy of the survey results: 59 clubs desired a copy.

Comparative Statistics

A test was run to assess the correlation between the various membership sizes and the total computer usage or applications at the various country clubs. Table 1 shows the pearson-product moment correlation that was run, which indicated a $r=0.617935$. The value shows that a significant correlation exists between membership sizes and total computer usage. Larger country clubs are more likely to utilize more computer applications in their facilities.

The next test was a one-way ANOVA on the different membership categories and the total computer usage. The results shown in Table 2 indicated that further analysis was necessary because there was a significant relationship present. The further analyses performed were a Duncan's comparison and Fisher's LSD comparison. (Fisher's LSD is recognized as the more conservative test). Both tests indicated there were significant differences between the total computer usage of smaller, medium and larger membership categories. The results, shown in Table 3 and 4, indicated that the larger the membership size is at the club, the more computer applications there are at the club.

Table 1

Pearson-Product Moment Correlation

* Membership Sizes correlated to Total Computer Applications

Correlation Coefficients:

Pearson's r   **0.617935** *

Spearman's rho   0.572230

Kendall's tau   0.363377

Sample Size   96

Table 2

Unweighted Means ANOVA

* Membership Size compared to Total Computer Usage

Expected Mean Squares

Source	DF	- Expected Mean Squares (S stands for Error).
A	2	S+nA
S	93	S

Analysis of Variance Report

ANOVA Table for Response Variable: Total

Source	DF	Sum-Squares	Mean Square	F-Ratio	Prob>F	Error Term
A(C23)	2	174.009	87.00449	30.67	*0.0000	Error
Error	93	263.8243	2.836821			
Total	95	437.8333				

Means & Effects for Y = Total

Term	Count	Mean	Std. Error	Effect
All	96	3.791667		3.310066
A: C23				
1	18	1.222222	0.3969902	-2.087844
2	37	3.756757	0.276895	0.4466906
3	41	4.95122	0.2630413	1.641153

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Table 3

Duncan's Comparison Report

Response Variable: Total   Factor(A,C23)   Error Term: Error

Summary Results = 0.05   Level Codes

Code(Level)	Mean	ABC
A(1)	1.222222	.SS
B(2)	3.756757	S.S
C(3)	4.95122	SS.

* A, B and C = membership size categories
* 1 = 1-250, 2 = 251-500, and 3 = greater than 500
* . = group being analyzed
* S = Significance

Table 4

Fishers LSD Comparison Report

Response Variable: Total   Factor(A,C23)   Error Term: Error

Summary Results   = 0.05   Level Codes

Code(Level)	Mean	ABC
A(1)	1.222222	.SS
B(2)	3.756757	S.S
C(3)	4.95122	SS.

*   A, B and C = membership size categories
*   1 = 1-250, 2 = 251-500, and 3 = greater than 500
*   . = group being analyzed
*   S = Significance

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The final analysis was a one-way ANOVA run on the clubs' geographic area to determine if that area was related to determining the amount of computer usage. Table 5 shows the comparison of the geographic area to the total computer usage. The results indicated a significant relationship did exist among the different geographic areas and their computer usage. Further analysis was warranted due to the indication that there was a relationship present.

Two post-hoc tests were run: Duncan's comparison and Fisher's LSD test. Table 6 and 7 showed that the order of the means suggested that the suburbs had the most usage followed by the city area and then the rural area with the least amount of computer usage. However, the results shown in Table 6 and 7 indicated that there was not a significant difference in the mean number of computer applications used by the city and rural area clubs, but there was a significant difference compared to the suburb area clubs.

Table 5

Unweighted Means ANOVA

* Geographical Setting compared to Total Computer Usage

Expected Mean Square

Source	DF	Expected Mean Squares (S stands for Error).
A	2	S+nA
S	93	S

Analysis of Variance Report

ANOVA Table for Response Variable: Total

Source	DF	Sum-Squares	Mean Square	F-Ratio	Prob>F	Error Term
A(Q2)	2	110.4044	55.20222	15.68	*0.0000	Error
Error	93	327.4289	3.520741			
Total	95	437.8333				

Means & Effect for Y = Total

Term	Count	Mean	Std. Error	Effect
All	96	3.791667		3.900159
A:Q2				
1	21	3.714286	0.4094561	-0.1858735
2	43	2.767442	0.2861428	-1.132717
3	32	5.21875	0.3316974	1.318591

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Table 6

Duncan's Comparison Report

Response Variable: Total   Factor(A,Q2)   Error Term: Error

Summary Results = 0.05   Level Codes

Code(Level)	Mean	ABC
A(2)	2.767442	..S
B(1)	3.714286	..S
C(3)	5.21875	SS.

*   A, B and C = geographic areas
*   1 = city, 2 = rural, and 3 = suburbs
*   . = group being analyzed
*   S = Significance

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Table 7

Fisher's LSD Comparison Report

Response Variable: Total   Factor(A,Q2)   Error Term: Error

Summary Results = 0.05   Level Codes

Code(Level)	Mean	ABC
A(2)	2.767442	..S
B(1)	3.714286	..S
C(3)	5.21875	SS.

* A, B and C = geographic areas
* 1 = city, 2 = rural, and 3 = suburbs
* . = group being analyzed
* S = Significance

Chapter 5

Conclusion

Summary

The results of the survey analysis indicated that the differences between computer usage in clubs and geographical areas of clubs, and computer usage in clubs and membership size of clubs were not by chance. The analyses indicate that the larger the country club membership, the greater the amount of computer applications they utilize. As noted in the review of literature, a review of the hospitality industry in the hotel sector indicates that computers can provide users with the tools to achieve greater efficiency and productivity. Although the purchase cost of a computer system is quite expensive, the value gained can save in future labor dollars and additional expenses.

The priority of a computer system as a future capital expenditure should be carefully weighed by club managers. A club manager must balance the savings that can be generated by buying a computer system against the cost of obtaining a system. It seems likely that a club manager who follows the appropriate steps in purchasing an appropriate computer system for a facility should be satisfied by the return. It must be remembered, however, that this study was limited to private golf country clubs in Virginia only. It is also notable that the numbers from the respondents had membership

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sizes which were skewed towards the larger and medium sized club categories on the survey.

Computers may become smaller and process things more quickly, but they will not disappear. It is this researcher's belief that computer applications will be an effective management tool for private golf country clubs in the future. It appears that the potential gains far outweigh the initial costs of taking this step to success.

Reference List

Country Club Systems. (1993). Country Club Systems Affiliate Golf Corporation: Leaders Because We Listen. Fairport, NY: Author.

Diamond Management Systems. (1993). Computer Systems for Clubs. Jenkintown, PA: Author.

Dillman, D. A. (1978). Mail and telephone surveys: The total design method. New York: John Wiley & Sons.

Handicomp. (1993). Computer Systems and Services. Jenison, MI: Author.

Hohol, H. J. (1973). The structure and functioning of a golf and country club: A case study. Dissertation Abstracts International, 34, 428A. (University Microfilms No. 73-17, 561)

Kafalas, J. (1993, May). Two early converts keep on marching. Computerworld, pp. 102-104.

Kerr, G. (1993, August). Hyatt Hotel: sticking with simplicity. Computerworld, pp. 11-12.

King, J. (1993, July). Quality conscious. Computerworld, pp. 89-91.

Mann, C. W. (1993, November). Shaping the computer to your needs. Fitness Management, pp. 30-33.

Mid-Atlantic Professional Golf Association. (1993). Private Golf Clubs in the State of Virginia. Columbia, MD: Author.

Moss, R. (1993, April). Sport and social status: Golf and the making of the country club in the United States,

33

1882-1920. <u>The International Journal of the History of Sport</u>, pp. 93-100.

National Golf Foundation. (1994). <u>Computer Services/Data Processing Firms</u>. Jupiter, FL: Author.

Peper, G., & McMillan, R., & Frank, J. A. (Eds.). (1988). <u>Golf in America: The first One Hundred Years</u>. New York: Harry N. Abrams, Inc.

Smyth Business Systems. (1993). <u>Single Source Solutions for the Club, Golf, and Resort Industries</u>. Canton, OH: Author.

SURVEY

Please mark the appropriate box for each question.

1. What is the approximate size of your club's membership?

    ❑ a. less than 100   ❑ c. 251-500
    ❑ b. 101-250   ❑ d. 500 or more

2. In which type of area is your club located?

    ❑ a. city   ❑ b. rural   ❑ c. suburbs

3. How many holes do you have at your course? _____

4a. How many full-time staff members work at your facility?   _____

4b. How many part-time staff members work at your facility? _____

5. How often do you bill your members?

    ❑ a. monthly   ❑ c. semi-annually
    ❑ b. quarterly   ❑ d. annually

6. How many tournaments do you have per year?   _____

7. Are you familiar with the potential computer applications for country clubs?

    ❑ a. Yes   ❑ b. No

8a. Do you use any computer software at your facility?

    ❑ a. If yes, please continue with question #8b.
    ❑ b. If no, skip to question #18.

8b. If you answered yes to question #8a., what hardware to you use?

    _____

8c. If you answered yes to question #8a., what software do you use?

    _____

    _____

9. Do you use a computer system for tee time scheduling?

    ❑ a. Yes   ❑ b. No

10. Do you use a computer system for tournament management functions?

❑ a. Yes   ❑ b. No

11. Does your club use a computerized handicapping system?

❑ a. Yes   ❑ b. No

12a. Do you utilize a computerized member billing system?

❑ a. Yes   ❑ b. No

12b. Are your cash registers for pro-shop/food service/and other services linked to a computer system in order to provide a central billing procedure?

❑ a. Yes   ❑ b. No

13. Do you order and receive inventory on a computer system?

❑ a. Yes   ❑ b. No

14. Does your course superintendent use a computer system for inventory, and management functions on the golf course itself? Example: scheduling staff, chemical spraying dates, etc.

❑ a. Yes   ❑ b. No

15. Do you use a computer system for staffing interior facilities and for the payroll?

❑ a. Yes   ❑ b. No

16. Do you plan to increase computer hardware and software usage at your facility in the future?

❑ a. Yes   ❑ b. No

17. Has this survey made you more aware of the applications of computer usage in the golf industry?

❑ a. Yes   ❑ b. No

18. Please indicate if you would like to receive a copy of the survey results.

❑ a. Yes   ❑ b. No

Thank you very much for your time in completing this survey!!

David T. Kincaid
106 Givens Lane
Blacksburg, VA 24060
703/552-7271

March 7, 1994

Club Manager
FOR ADDITIONAL LABELS,
REQUEST BCMC2.WP.
THANK YOU

Dear Club Manager:

My name is David Kincaid. I am doing research to complete a Master's degree in Sports Management at Virginia Tech. Enclosed is a survey that I would appreciate you taking the time to complete. Also included for your convenience, please find a self-addressed, stamped return envelope.

The information that you provide will be used to analyze the computer usage in the golf industry in Virginia. All individual responses will be kept confidential. The surveys are numbered merely for follow-up responses. Your time and effort in completing this survey will be greatly appreciated. If you fill out the survey and circle yes to question #18, I will be happy to mail you a copy of the results.

In anticipation of your cooperation, I thank you very much!

Sincerely,

David T. Kincaid
Master's Degree Student

Elyzabeth J. Holford, J.D.
Associate Professor
Assistant Dean
Thesis Advisor

Enclosures

bcmc.wp

Dear Club Manager:

This is just a reminder to request that you complete the survey I mailed to you approximately two weeks ago. Please fill out the survey and return it to me in the self-addressed and stamped envelope. Your timely response and help will be greatly appreciated!

Thank you,

David T. Kincaid
Master's Degree Student

David T. Kincaid
106 Givens Lane
Blacksburg, VA 24060
703/552-7271

March 7, 1994

Club Manager
FOR ADDITIONAL LABELS,
REQUEST BCMD2.WP.
THANK YOU

Dear Club Manager:

This is a follow-up letter concerning the research I am doing on computer usage in private Virginia Country Clubs. Enclosed, please find another survey. I would appreciate your taking the time to complete and return the survey to me as soon as possible. An envelope has been included for your convenience. If you fill out the survey and circle yes to question #18, I will be glad to mail you a copy of the results.

Your assistance in completing the survey is truly appreciated. Thank you for your time and effort.

Sincerely,

David T. Kincaid
Master's Degree Student

Elyzabeth J. Holford, J.D.
Associate Professor
Assistant Dean
Thesis Advisor

Enclosures

bcmd.wp

Vita

David Thomas Kincaid, son of R. Thomas and Linda Anton, was born in Frederick, Maryland on December 6, 1970. He graduated from Middletown High School in Middletown, Maryland in May, 1988. He received his Bachelor of Science Degree in Hotel, Restaurant, and Institutional Management from Virginia Tech in Blacksburg, Virginia in May, 1992.

David Thomas Kincaid
_____
David Thomas Kincaid

May, 1994