CHAPTER VI DISCUSSION:

6.1 Introduction

This chapter discusses the implications of the results that were presented in Chapter V.

6.2 Properties and the Delphi Method

As stated in Chapter V, the three categories of Attractiveness, Power, and Hospitality passed the Chi Square Test of Significance for difference. Attractiveness was the most important category and Power was the least important. A similar test for the properties was inconclusive at the 95% confidence level. However, when this was relaxed to 80%, the properties are different within the Attractiveness and Power categories. Facilities, Furnishings & Finishes have equal weight within the Hospitality category. The results of the Chi Square tests indicate that the three categories have different influences on a ship being a legend.

When the ships were rated on the various properties in Round 2 of the Delphi Method, the combination of high rated properties varied from ship to ship. However, as stated in Chapter V, all ships scored above the mean on at least three properties that were spread over a minimum of two of the three categories. Looking at the six ships in the Grand Legend classification, *Queen Mary, Queen Elizabeth 2, United States, France, Normandie,* and *Titanic,* there was not a consistent pattern in their property scores. This would indicate that ships were looked at on an individual basis and that there might be some factors playing a role which were not captured in the list of properties. This would

also indicate that the properties, and not the categories, played the major role in determining how a ship was judged. The mix of ships from the *Great Eastern* of 1859 to *Lusitania, Mauretania, Titanic, Imperator, Aquitania* of the early 1900s to the ships of state from the 1930s to the leaders of the 1950s and 1960s to *Queen Mary 2* of 2003, would imply that the superior ships were judged against their contemporaries more than against each other. The high attrition rate in Delphi Round 2 would indicate that the experts looked at ships holistically and did not like to deconstruct ships. One panel member dropped out, claiming to have insufficient expertise to judge the ships on the basis of the properties. Another panel member completed Round 2 but did not rate all the included ships, again claiming lack of knowledge/expertise. The list of ships from Delphi Round 1 indicated a divide between ocean liners and cruise ships. Only seven of the seventy ships were post-*Queen Elizabeth 2*. These were *Island Princess* of 1972, *Sovereign of the Seas* of 1987, *Carnival Destiny* of 1996, *Europa* of 1999, *Voyager of the Seas* of 1999, *The World* of 2002, and *Queen Mary 2* of 2003. Only *Voyager of the Seas* and *Queen Mary 2* scored above the Personal/Local Legend classification. And *Queen Mary 2*, which scored in the Legend classification, is considered more of an ocean liner than a cruise ship, having been designed to cross the Atlantic in 80+% of the weather conditions. Delphi panel members also suggested several additional properties be considered. These were Repeat Passenger Patronage, Commercial Profitability, and Funnel Shape & Design. Commercial profitability was considered to be included in Repeat Passenger Patronage and was not listed in the General Survey. Repeat Passenger Patronage and Funnel Design and Shape were added to the list of properties for the General Survey.

6.3 Properties and the General Survey

The General Survey respondents were asked to rate the 11 properties from the literature review, plus the two properties of Repeat Passenger Patronage and Funnel Shape & Design from Round 2 of the Delphi Method and the Media Attention property from my committee. Commercial Profitability, as mentioned earlier, was not included since it was reflected in Repeat Passenger Patronage. As of August 17, 2004, just over 300 useable responses had been received.

The initial General Legendary Passenger Ship Model, shown in Figure 44, listed the three categories and their constituent properties. For purposes of better definition and discrimination, the properties were modified for Delphi Round 2.

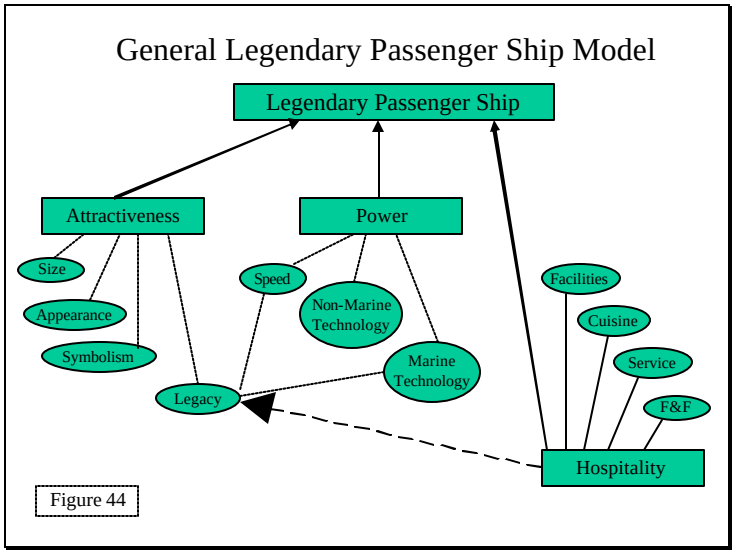

Figure 44

Attractiveness retained Size, while Appearance became External Aesthetic Appeal and Aesthetic Appeal of Layout/Plan/Passenger Flow. Symbolism became part of History,

which also included life, disasters, war, and symbolism. Legacy was defined as company, predecessors, name, and tradition, while a new property of Route/Cruising Area was added to the Attractiveness category.

Power retained its three properties of Speed, Marine Technology, and Non Marine Technology. Marine Technology was further defined to include engines, propulsion type, and propellers. Non Marine Technology was specified to include entertainment systems, interactive guest systems, and communications.

Hospitality's four properties were consolidated into two. The first, Facilities, Furnishings, & Finishes, reflected the hardware side of hospitality; while the second, Quality of Cuisine & Service, reflected the software side.

The results of Delphi Round 2 indicated that the Properties might play a greater role than the Categories. Therefore, the Properties used in Delphi Round 2; plus the two Properties of Funnel Design & Shape and Repeat Passenger Patronage, which were suggested by Delphi Panel members; and the Property of Media Attention, which was suggested at the April 23, 2004 Committee briefing; were included in the General Survey. Respondents were asked to rate the Properties on a Likert scale of 1 (not at all important) to 5 (very important). The scale was chosen for its ability to provide good discrimination and, at the same time, remain user friendly for respondents.

Two methods of Factor Analysis were run on the General Survey results. The first goal was to reduce the number of properties into a smaller number of categories/factors. The

orthogonal Principal Components Extraction with Varimax Rotation Method was used to achieve this. An equal goal was to obtain theoretically meaningful Categories from the Properties. The oblique Maximum Likelihood Extraction with Obimin Rotation Method was used to achieve that. Hair, Anderson, Tatham, & Black (1998, 106) write, "the first factor may be viewed as the single best summary of linear relationships exhibited in the data. The second factor is defined as the second-best linear combination of the variables, subject to the constraint that it is orthogonal to the first factor. To be orthogonal to the first factor, the second factor must be derived from the variance remaining after the first factor has been extracted. Thus the second factor may be defined as the linear combination of variables that accounts for the most residual variance after the effect of the first factor has been removed from the data. Subsequent factors are defined similarly, until all the variance in the data is exhausted." They (109) also cite the oblique rotational method as being more realistic, "because the theoretically important underlying dimensions are not assumed to be uncorrelated with each other." Both methods resulted in four factors/Categories, Attractiveness, Significance, Power, and Competitive Advantage. Only the order of the last two and the constituent Properties were different between the two methods. The Attractiveness and Power Categories remained from the initial model. The new categories of Significance and Competitive Advantage were formed from combinations of the new properties, properties from the Hospitality Category and other old Categories. When discussing the significance of factor loadings, Hair, Anderson, Tatham, & Black (1998) cite loadings of $\pm$.400 as more important and $\pm$.500 or greater as practically significant. Tables 38 and 39 show the matrices with factor loadings greater than .400 for both methods.

Table 38: Rotated Component Matrix from Principal Component Factor Analysis with Varimax with Kaiser Normalization Rotation

Property	Factor			
	1	2	3	4
Service & Cuisine Quality	.738			
Internal Layout	.717			
External Appearance	.653	.434		
Repeat Passenger Patronage	.644			.444
Facilities, Furnishings, & Finishes	.615		.488	
Funnel Design & Shape	.518			
History		.777		
Media Attention		.674		
Legacy		.640		
Size		.575		.470
Marine Technology			.802	
Non Marine Technology			.759	
Speed		.528	.573	
Route				.802

Table 39: Pattern Matrix from Maximum Likelihood Extraction with Oblimin with Kaiser Normalization Rotation

Property	Factor			
	1	2	3	4
External Appearance	.854			
Funnel Design & Shape	.414			
Media Attention		.650		
Size		.587		
History		.542		
Legacy		.466		
Route				
Service & Cuisine Quality			-.840	
Repeat Passenger Patronage			-.655	
Facilities, Furnishings, & Finishes				
Internal Layout				
Marine Technology				-.854
Non Marine Technology				-.565
Speed		.459		-.496

The Attractiveness Category from the General Survey contained the Properties of External Aesthetic Appeal, Aesthetic Appeal of Layout/Plan/Passenger Flow, Size, History (life, disasters, war, symbolism), Legacy (company, predecessors, name, tradition), Route/Cruising Area. The Attractiveness component/Category from the

Principal Components Method contained Service & Cuisine Quality, Internal Layout, Repeat Passenger Patronage, External Appearance, Facilities, Furnishings, & Finishes, and Funnel Design & Shape. The first three would be of more interest to people who actually sail on the ship while the last three would be of more interest to enthusiasts who may or may not have ever sailed on the ship. Under the Maximum Likelihood Method, the Attractiveness factor/Category contained just two Properties, External Appearance and Funnel Design & Shape. The new Significance component/Category under the Principal Components Method contained the Properties of History, Media Attention, Legacy, Size, and Speed. Under the Maximum Likelihood Method, these were Media Attention, Size, History, Legacy, and Speed. The third component/Category, Power, contained Marine Technology, Non Marine Technology, Speed, and Facilities, Furnishings, & Finishes. Under the Maximum Likelihood Method, this factor/Category placed fourth versus third. It contained Marine Technology, Non Marine Technology, and Speed. The fourth component/Category was a new one, Competitive Advantage. It contained Route, Size, and Repeat Passenger Patronage. Under the Maximum Likelihood Method, this factory/Category was third and contained Service & Cuisine Quality and Repeat Passenger Patronage.

The strongest Category under both methods was Attractiveness. The second strongest was Significance. Attractiveness contained External Appearance and Funnel Shape & Design under both methods. This would indicate a very strong visual influence. Significance contained History, Media Attention, Legacy, Size, and Speed under both methods. These properties provide both the source of and means by which stories are passed from generation to generation. The Power Category contained Marine Technology, Non Marine

Technology, and Speed under both methods, while Repeat Passenger Patronage was the only Property from the Competitive Advantage Category that was present under both methods.

A number of Properties double loaded on two Categories under the Principal Component Method. These were Repeat Passenger Patronage, External Appearance, and Facilities, Furnishings, & Finishes from the Attractiveness Category, which also loaded, respectively, on the Significance, Power, and Competitive Advantage Categories. When the loading cutoff is increased to .500, these double loadings are eliminated. The Speed Property double loads on the Significance and Power Categories under both methods. In both cases the Power loading is slightly larger than the Significance loading. When the cutoff point is decreased to .350 the double loading increases across the Attractiveness and Significance Categories with the addition of the External Appearance and Legacy Properties. However, in all cases with the exception of the Speed Property, the loading is practically significant on one Category and either statistically significant or important on the other Category. This would imply that the judgment process is complex and that while a Property may be highly important for a specific Category it may also influence another Category.

6.4 Delphi Method Legendary Ships

Cluster analysis divided the 71 ships from Delphi Round 1 into four groups. The Grand Legend classification contained six ships. The Legend classification contained twelve ships. The Demi Legend classification also contained twelve ships. The top classification

contained *Queen Mary*, *United States*, *Normandie*, *Queen Elizabeth 2*, *Titanic*, and *France*, some of the best known transatlantic liners ever built. With the exception of *Canberra*, the Legend classification only contained transatlantic liners. In size, speed, and décor, *Canberra* was the equal of any of her transatlantic liner contemporaries. The oldest was the *Great Eastern* of 1857 and the newest was *Queen Mary 2* of 2003. Voyager of the Seas and *Achille Lauro*, ex-*Willem Ruys*, were the only exceptions to transatlantic liners in the Demi Legend classification. This classification also contained three ships from the 1800s, Cunard's *Britannia* of 1840, Brunel's *Great Britain* of 1843, and North German Lloyd's *Kaiser Wilhelm der Grosse* of 1897. There were only four recent cruise ships in the Personal/Local Legend classification, *Sovereign of the Seas* of 1988, *Carnival Destiny* of 1996, *Europa* of 1999, and *The World* of 2002. The first two were the largest ships in the world when built. The third is renown for her luxury and service, while the fourth is an innovator in the concept of residences at sea. Most of the other ships in that classification were ships from the Ocean Liner Era. The remainder were early cruise ships from the beginning of the Cruise Ship Era. These results indicate that legendary in passenger ships is associated with ocean liners, specifically, transatlantic liners. The large number of ships generated by the panel of thirteen experts would indicate that the criteria for legendary passenger ships varies from person to person but that there are certain ships that numbers of people can agree are legendary. The preponderance of ships from the 1900s would indicate that legendary ships are associated with living memory.

6.5 General Survey Legendary Ships

The General Survey generated 239 ships from just over 300 respondents. These ships could be separated into the same four classifications as those from the Delphi Method. Twenty six of these ships were in the Demi Legend or higher classification versus thirty from the Delphi Method. The oldest ships were *Lusitania* and *Mauretania* of 1907. In the Delphi Method, *Britannia* of 1840, *Great Britain* of 1843, *Great Eastern* of 1857, and *Kaiser Wilhelm der Grosse* of 1897 were included in those classifications. When responses received since August 20, approximately 20 as of September 26, were added into the data, the results of the cluster analysis changed. The 13 ships in the Demi Legend classification became part of the Personal/Local Legend classification and the Grand Legend classification split into two groups. *Queen Mary*, *United States*, *Normandie*, and *Queen Elizabeth 2* formed one group. *Titanic* and *France* were joined by *Queen Elizabeth* to form the second group. The remaining six ships from the Legend classification formed the third group with all remaining ships forming the fourth group. When the cluster analysis was forced into a five cluster solution, the initial Demi Legend group reemerged from the Personal/Local Legend group. As the cluster analysis was forced into six to nine cluster solutions, the first group of *Queen Mary*, *United States*, *Normandie*, and *Queen Elizabeth 2* began to pull apart into different clusters. The Demi Legend group did not pull apart until the nine cluster solution. The groupings derived from cluster analysis are homogeneous groups. The members are closer to other members of the group than they are to members of other groups. Cluster analysis provides an objective methodology for grouping objects in clusters that maximize the homogeneity within the clusters and maximize the heterogeneity between the clusters (Hair, Anderson, Tatham, & Black,

1998). However, the grouping could not be considered solely in light of the results from the cluster analysis. When the literature was considered, the solution, that includes the ships from the August 20 Demi Legend group as a separate group and that combines the *Queen Mary*, *United States*, *Normandie*, *Queen Elizabeth 2*, *Titanic*, *France*, and *Queen Elizabeth* into a Grand Legend group, offered the most realistic representation. As the additional responses, received since August 20, illustrated; ships within the Personal/Local Legend classification may receive more hits, but at the same time, ships in the other classifications also receive more hits. Thus the relative distances between the clusters tend to remain the same. Even if the number of respondents was increased substantially, the clusters should remain the same as long as the basic demographics (age, nationality) of the sample were maintained. Should the increase in respondents come from one country such as France, Germany, Italy, or The Netherlands, ships such as *l'Atlantique*, *Cap Arcona*, *Conte di Savoia*, *Leonardo da Vinci*, *Michelangelo*, and *Raffaello*, might move into the Demi Legend classification, while *Bremen*, *Europa*, and *Nieuw Amsterdam* might even move into the Legend classification. However, the Grand Legend classification should remain unchanged since the status of the ships in this classification makes them highly likely to continue to receive hits and thereby maintain their relative positions. This is further discussed in Chapter VIII.

6.6 Legendary General Survey Cruise Ships

There were 61 purpose built post-1965 cruise ships among the 239 ships named in the General Survey. *Vistafjord* was included as a cruise ship; even though she was an improved version of the dual purpose *Sagafjord*; because by 1973, Norwegian America

Line had ceased non-cruise transatlantic service and built her for full time cruising. *Queen Mary 2* was not included as a cruise ship since she was designed as and is considered by most to be an ocean liner. Eight ships were named two times. And only 11 post-1965 cruise ships were named three or more times, a minimum of ±1% of total respondents. These 11 ships were *Pacific Princess*, 15 responses; *Voyager of the Seas*, 10 responses; *Sovereign of the Seas*, 9 responses; *Vistafjord*/*Caronia*, 8 responses; *Royal Viking Star*/*Black Watch*, 6 responses; *Royal Viking Sea*, *Royal Viking Sun*/*Prinsendam*, *Oriana* (1995), 5 responses; *Royal Viking Sky* and *Royal Princess*/*Artemis*, 4 responses; and *Carnival Destiny*, 3 responses. The cut off for the Demi Legend classification was 19 responses. The 11 ships share a number of Properties from the Attractiveness and Significance Categories. *Pacific Princess*, *Vistafjord*/*Caronia*, *Royal Viking Star*/*Black Watch*, *Royal Viking Sea*, *Royal Viking Sun*/*Prinsendam*, *Oriana, Royal Viking Sky*, and *Royal Princess*/*Artemis* would have all scored high in Service & Cuisine Quality and Facilities, Furnishings, & Finishes at some point in their careers. All 11 ships would have also scored high on External Appearance and Funnel Shape & Design. *Voyager of the Seas*, *Sovereign of the Seas*, and *Carnival Destiny* would have scored high in the Size Property, having been at one point the largest passenger ship in the world. *Royal Princess* and *Oriana* would also score high on this Property, having been the largest purpose-built cruise ship when delivered and the largest cruise ship built specifically for the British market, respectively. The Royal Viking ships, *Oriana*, and *Vistafjord* would score high on the Legacy Property. *Voyager of the Seas* and *Sovereign of the Seas*, by nature of their size and innovations, and *Oriana*, by nature of her position in the British market, might score high on Media Attention. *Vistafjord*, by nature of her long service, and *Pacific Princess*, as the star of the American television series, *The Love Boat*, would score high

on History. Even with the combination of Properties in the Attractiveness and Significance Categories, none of these cruise ships were able to gain enough responses to be in the Demi Legend classification. This would imply that cruise ships and ocean liners are viewed as separate entities when it comes to legends.

6.7 Summary and Conclusion

The results of the Chi Square Test of the Delphi Method responses indicated that the Categories did not have equal influence on a ship becoming a legend. When the Property scores for the six ships in the Grand Legend classification, *Queen Mary, Queen Elizabeth 2*, *United States*, *France*, *Normandie*, and *Titanic*, are examined, there is not a consistent pattern in the scores. This would indicate that the ships are being looked at on an individual basis and that maybe the Properties, and not the Categories, decided which ships were legends. The Delphi Method also indicated that there was a divide between ocean liners and cruise ships when picking legendary passenger ships. Only 7 of the 70 ships from the Delphi Method entered service after *Queen Elizabeth 2*. These were *Island Princess*, *Sovereign of the Seas*, *Carnival Destiny*, *Europa*, *Voyager of the Seas*, *The World*, and *Queen Mary 2*. *Voyager of the Seas* and *Queen Mary 2* scored, respectively, in the Demi Legend and Legend classifications. The named cruise ships were noted for their size, innovation, historic significance, or luxury, or a combination of these, as in the case of *Voyager of the Seas* and *Queen Mary 2*.

The General Survey requested up to ten legendary passenger ships from respondents and also asked them to rate 14 Properties on their importance for a ship becoming a legend.

These Properties were the 11 from the Delphi Round 2 plus three additional Properties, two from Delphi Panel members and one from Committee members. Two methods of Factor Analysis were run on the General Survey responses. The goals of the factor analyses were to objectively reduce the number of properties into a smaller number of categories/factors and to obtain theoretically meaningful Categories from the Properties. Principal Components Extraction with Varimax Rotation accomplished the first, while Maximum Likelihood Extraction with Oblimin Rotation accomplished the second.

The first method produced four Categories. The initial Attractiveness and Power Categories remained while the Properties of the initial Hospitality Category were absorbed into other Categories. The new Categories of Significance and Competitive Advantage emerged from the analysis. The results of the second method supported these four Categories. The strongest Categories under both methods were Attractiveness and Significance, respectively. Attractiveness contained External Appearance and Funnel Shape & Design under both methods, indicating a very strong visual influence. Significance retained History, Media Attention, Legacy, Size, and Speed under both methods. These Properties provide both the sources of and the means by which stories are passed from generation to generation. The Power Category contained Marine Technology, Non Marine Technology, and Speed under both methods, while Repeat Passenger Patronage was the only Property from the Competitive Advantage Category that was shared.

Under the first method, a number of Properties loaded very strong on one Category and less strong on a second Category. This would indicate that a combination of Properties

are used for judging ships and support this indication from the Delphi Method.

The lists of legendary passenger ships from the General Survey contained 239 different ships from over 300 respondents. These ships could be separated into the same four classifications as those from the Delphi Method. However, the General Survey selection was more stringent than the Delphi Method, only 26 ships were in the Demi Legend or higher classifications as opposed to 30 out of 70 under the Delphi Method. Whereas these classifications from the Delphi Method contained some historically important ships from the 1800s, the oldest General Survey ships were the *Lusitania* and *Mauretania* of 1907. This would imply that the public is less historically minded than the experts and tends to remember those ships closest to living memory.

The lack of cruise ships among the Demi Legend or above classification was noticeable. Only *Queen Mary 2* placed in the Legend classification. She is considered more an ocean liner, having been designed and built as such and so viewed by the public. This supports the indication from the Delphi Method that ocean liners and cruise ships are viewed as separate entities with regards to legends

The next chapter examines the concept of legend in light of the Delphi Method and General Survey results. The final chapter integrates this chapter and the concept of legend, confirms the propositions, and introduces the revised legendary passenger ship model.