TALLINK: Connecting Estonia to Finland, Sweden Russia

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SUPPLY CHAIN MANAGEMENT | FINANCIAL ANALYSIS | STRATEGIC ANALYSIS

The case follows Enn Pant, chairman of Tallink, who was considering purchasing a new ferry and reassigning the company's existing fleet to different routes. Tallink had recently inaugurated its most modern ferry to date in 2002 – the M/S Romantika, a € 150 M 2500 passenger for Tallinn to Helsinki.

Proposal

This analysis addresses whether Tallink should purchase a sister ship for the Tallinn-Stockholm route directing from Tallinn-Stockholm-St.Petersburg.

History

Tallink was founded as a JV in 1989 during the Soviet Union dissolution by 4 partners: Palkkiyhtyma Oy, City of Tallinn, Port of Tallinn, and Eesti Merelaevandus. Palkkiyhtyma Oy sold their 49% share to Eesti Merelaevandus in 1993, who then sold some parts of the firm to private Estonians. Enn Pant joined as chairman in 1996, purchasing 2 new passenger vessels: M/S Fantaasia and M/S Vana Tallinn. At 2000, Tallink purchased their first high-speed catamaran and bought a new 2500 passenger vessel called M/S Romantika from Aker Finnyards for the Tallinn-Helsinki route. In 2002, M/S Romantika was launched, freeing up M/S Faantasia for Tallinn-Stockholm. In the same year, Tallink sold Express I catamaran and purchased 2 ferries: M/S Meloodia and M/S Regina Baltica, previously under charter from Estonian Shipping Company and opened 2 sales offices in Stockholm, and Tallinn. They also sold 4% of company to private investment funds to finance new vessels and considered going public.

Competitors

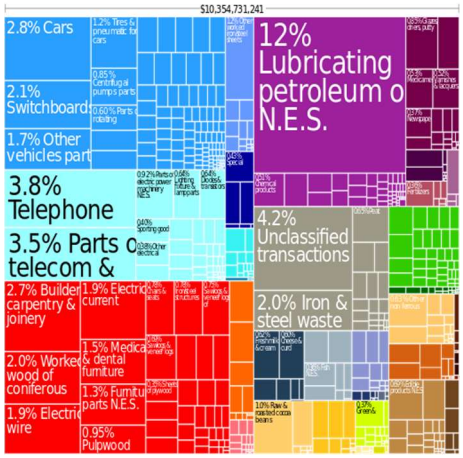
Nordic Jet Lines	Viking Line	Silja Line

Recommendation

Tallink should sell the Meloodia, Fantaasia, and Kapella. It should use the proceeds from the sale to purchase the Silja line in the Baltic and then re-consolidate ferries. The AutoExpress 2 should be kept on Tallinn-Stockholm line to mitigate demand uncertainties. Due to cost uncertainties, Tallink should not purchase the new considered ferry and instead focus on using the AutoExpress 1 to service from Tallinn-Stockholm-St. Petersburg. This would allow Pant to pursue the initial question asked within the question of whether Tallinnk should pursue an initial public offering.

Country Analysis: Republic of Estonia

Capital	Tallinn
Population	1.3 Million
Area	45,227 sq km
Languages	Estonian, Russian
Major Religion	Christianity
Life Expectancy	Men: 70, Women: 80
Currency	Euro



Political System

Estonia gained independence on 20 August 1991 following the break-up of the Soviet Union. The Fourth Constitution of the Republic of Estonia, adopted on 28 June 1992, set up a democratic system based on a Presidency and a single 101-seat parliament, known as the Riigikogu. After their March 2015 parliamentary elections, the Estonian Reform Party and the Estonian Social Democrats formed a coalition government with 34-year-old Taavi Rõivas as the new Prime Minister. [1] Estonia joined NATO on 2 April 2004 and acceded to the European Union on 1 May 2004. Estonia joined the Schengen group of European countries on 21 December 2007. Estonia was accepted into the eurozone on 1 January 2011. Note that a significant issue in the case is visa travel between Russia and Estonia, which is stated to take multiple weeks with a probability of not being accepted. A significant portion of tourists to Tallinn are partiers/weekenders which might be undesirable to other countries.

Economic System

The Estonian economy has held up well since the global financial crisis. Economic growth is expected to continue to strengthen from 1.5 per cent in 2016 to 2.5 per cent forecast for 2017. [2] Estonia has pursued a free market, pro-business economic agenda, and sound fiscal policies that have resulted in balanced budgets and low public debt. Trade drives the economy with low restrictions on FDI. It has strong trade ties with Finland, Sweden, German, and Russia. GDP per capita is around 30,000 USD, which places it at 64th in the world.

[1] DFAT, Government of Australia
[2] IMF

High-speed, Passenger and Cargo Traffic

Mini-cruise, Hotel and Travel Packages

Revenue Drivers	Cost Drivers
Number of passengers	Fuel Cost
Average spend per passenger	Capacity Development

Product

Tallink is a firm offering a broad transportation, leisure and retail product: with complete mini-cruise and overnight hotel & spa packages, city-break day trips, high-speed ferry and cargo. It is a popular mini-cruise product across Scandinavia and the Baltics with extensive onboard retail and entertainment facilities. Destinations are attractive and lucrative for tourism and shopping destination. Significant demand from business customers, tourism and cargo traffic boosted by EU accession and tax-free status in certain countries that the ferry passes through.[3]

Competitors

The competitive landscape at the time was concentrated – there were 4 competitors capturing the majority of the market, with Tallink representing a significant portion of this market. The links that the company provides between cities are similar; each firm carries a certain capacity to location.

Substitutes

There are three primary substitutes for ferries: planes, trains and cars. The rate of substitution is low as the reasons for transportation differ significantly. For ferries, passengers are looking for a medium time route to enjoy some relaxation, whereas in planes, passengers are looking for the fastest option. Using a car to travel between the routes would require passengers to travel across other countries, so the rate of substitution is low. In the passenger freight category, there are two alternatives: trucks and trains. They would be more expensive and slower than freights, unless from Russia to Tallinn.

Value Barriers

Barriers include regulatory issues such as a lack of Visa issuance from Russia, geographic restrictions such as a freezing sea, facilities in St. Petersburg, and infrastructure issues with passengers travelling one way or another.

Value Drivers

Consolidation through M&A is a significant value driver for this industry. Consolidating routes, marketing expenses, and coordination of fleets would reduce overhead significantly to create value.

[3] Tallink Company Presentation 2006

ship	passengers (per year)	distance (knots)	revenue (per passenger)	cargo (units)	cargo filled (units)	cargo cost (€)	filled (passengers)	shop avg cost (€)	shop sales (€)	shop cogs (€)	revenue (€)
Tallinn-Helsinki	2,325,000	86	41.81	48,000	48,000	100	2,325,000	7.74	18,000,000	11,700,000	120,000,000
Tallinn-Stkholm	325,000	486	80.54	4,000	4,000	250	325,000	25.85	8,400,000	5,460,000	35,575,000
Paldiski-Kpskär	97,000	454	68.56	35,000	35,000	250	97,000	18.30	1,775,000	1,153,750	17,175,000
Helsinki-St.Petersburg	300,000	179	90.00	2,000	0	250	0	8.00	0	0	0
Total	3,047,000	301.25	70.23	89,000	87,000	213	2,747,000	15	28,175,000	18,313,750	**172,750,000**

route	passengers (per trip)	trip time (hours)	operational (num months)	trips (per yr)	max trips (per yr)	capacity (per yr)
Romantika	2500	4.78	4.00	178	1,070	445,000
Meloodia	1600	4.78	12.00	750	1,070	1,200,000
AutoExpress	575	2.53	12.00	557	2,022	320,275
AutoExpress 2	700	2.26	12.00	514	2,259	359,800
Regina Baltica	1500	27.00	12.00	97	189	145,500
Fantaasia	1700	27.00	12.00	106	189	180,200
Vana-Tallinn	1500	25.22	12.00	60	203	90,000
Kapella	50	25.22	12.00	140	203	7,000

route	current passengers (passengers)	utilization (%)	cargo (units)	fixed cost (annual)	fuel cost (per knot)	route (#)	keep (yes/no)	trip distance (knots)	fuel cost (€)
Romantika	445,000	100	10,000	8,836,000	307.03	1	Yes	86	4,700,000
Meloodia	1,200,000	100	24,000	19,980,000	206.51	1	Yes	86	13,320,000
AutoExpress	320,000	100	7,000	5,124,000	152.81	1	Yes	86	7,320,000
AutoExpress 2	360,000	100	7,000	5,740,000	185.50	1	Yes	86	8,200,000
Regina Baltica	145,000	100	2,000	3,981,250	84.45	2	Yes	486	3,981,250
Fantaasia	180,000	100	2,000	5,846,000	107.35	2	Yes	486	5,530,000
Vana-Tallinn	90,000	100	5,000	2,642,500	110.87	3	Yes	454	3,020,000
Kapella	7,000	100	30,000	1,727,000	55.58	3	Yes	454	3,532,500
				53,876,750					**49,603,750**

total revenue	**172,750,000**	**fundamental drivers**		
total costs	**121,794,250**	capacity	sell/keep	
gross margin	**50,955,750**	route	shop cogs	65%

The above is the previous configuration for the fleet. The next three diagrams that follow detail year 1, year 2, and year 3 onwards for the company

route	passengers	distance	revenue	cargo	cargo filled	cargo cost	filled	shop avg cost	shop sales	revenue
2002/2003	*(per year)*	*(knots)*	*(per passenger)*	*(units)*	*(units)*	*(€)*	*(passengers)*	*(€)*	*(€)*	*(€)*
Tallinn-Helsinki	2,371,500	86	40.99	51,840	10,000	100	2,371,500	7.59	18,000,000	116,200,000
Tallinn-Stkholm	390,000	486	67.12	4,000	4,000	250	390,000	21.54	8,400,000	35,575,000
Paldiski-Kpskär	97,000	454	68.56	35,000	5,000	250	97,000	18.30	1,775,000	9,675,000
Helsinki-St.Petersburg	200,000	179	90.00	2,000	2,000	250	200,000	8.00	1,600,000	20,100,000
									29,775,000	181,550,000

ship	passengers	speed	trip time	operational	trips	max trips	capacity
2002/2003	*(per trip)*	*(knots)*	*(hours)*	*(num months)*	*(per yr)*	*(per yr)*	*(per yr)*
Romantika	2500	18	4.78	12.00	949	1,064	2,372,500
Meloodia	1600	18	-	12.00	-	0	-
AutoExpress	575	34	5.26	12.00	597	965	343,275
AutoExpress 2	700	38	-	12.00	-	0	-
Regina Baltica	1500	18	27.00	12.00	182	188	273,000
Fantaasia	1700	18	27.00	12.00	169	188	287,300
Vana-Tallinn	1500	18	25.22	12.00	68	201	102,000
Kapella	50	18	-	12.00	-	0	-

ship	current passengers	utilization	cargo	fixed cost	fuel cost	route	trip distance	fuel cost
2002/2003	*(passengers)*	*(%)*	*(units)*	*(annual)*	*(per knot)*	*(#)*	*(knots)*	*(€)*
Romantika	445,000	533	10,000	8,836,000	307.03	1	86	25,057,865
Meloodia	1,200,000	-	-	-	206.51	0	0	-
AutoExpress	320,000	107	7,000	5,124,000	152.81	4	179	16,329,948
AutoExpress 2	360,000	-	-	-	185.50	0	0	-
Regina Baltica	145,000	188	2,000	3,981,250	84.45	2	486	7,469,974
Fantaasia	180,000	160	2,000	5,846,000	107.35	2	486	8,816,698
Vana-Tallinn	90,000	113	5,000	2,642,500	110.87	3	454	3,422,667
Kapella	7,000	-	-	-	55.58	0	0	-
				26,429,750				**61,097,152**

total revenue	181,550,000	**fundamental drivers**		
total costs	106,880,652	capacity	sell/keep	
gross margin	74,669,348	route	shop cogs	65%
min trips for max cargo-Fantaasia	50			
PV	**66,669,061**			

route	passengers	distance	revenue	cargo	cargo filled	cargo cost	filled	shop avg cost	shop sales	shop cogs	revenue
2003/2004	*(per year)*	*(knots)*	*(per passenger)*	*(units)*	*(units)*	*(€)*	*(passengers)*	*(€)*	*(€)*	*(€)*	*(€)*
Tallinn-Helsinki	2,418,930	86	40.99	55,987	10,000	100	2,418,930	7.59	18,360,000	11,934,000	118,504,000
Tallinn-Stkholm	468,000	486	67.12	4,000	4,000	250	468,000	21.54	10,080,000	6,552,000	42,490,000
Paldiski-Kpskär	97,000	454	68.56	35,000	5,000	250	97,000	18.30	1,775,000	1,153,750	9,675,000
Helsinki-St.Petersburg	300,000	179	90.00	2,000	2,000	250	300,000	8.00	2,400,000	1,560,000	29,900,000
Total	3,283,930	301.25	66.66	96,987	21,000	213	3,283,930	14	32,615,000	21,199,750	**200,569,000**

ship	passengers	trip time	operational	trips	max trips	capacity
2003/2004	*(per trip)*	*(hours)*	*(num months)*	*(per yr)*	*(per yr)*	*(per yr)*
Romantika	2500	4.78	12.00	968	1,064	2,420,000
Meloodia	1600	4.78	12.00	-	1,064	-
AutoExpress	575	2.53	12.00	597	2,009	343,275
AutoExpress 2	700	2.26	12.00	-	2,246	-
Regina Baltica	1500	27.00	12.00	182	188	273,000
Fantaasia	1700	27.00	12.00	169	188	287,300
Vana-Tallinn	1500	25.22	12.00	68	201	102,000
Kapella	50	25.22	12.00	-	201	-

ship	current passengers	utilization	cargo	fixed cost	fuel cost	route	keep	trip distance	fuel cost
2003/2004	*(passengers)*	*(%)*	*(units)*	*(annual)*	*(per knot)*	*(#)*	*(yes/no)*	*(knots)*	*(€)*
Romantika	445,000	544	10,000	8,836,000	307.03	1	Yes	86	25,559,551
Meloodia	1,200,000	-	-	-	206.51	0	**No**	0	-
AutoExpress	320,000	107	7,000	5,124,000	152.81	4	Yes	179	16,329,948
AutoExpress 2	360,000	-	-	-	185.50	0	**No**	0	-
Regina Baltica	145,000	188	2,000	3,981,250	84.45	2	Yes	486	7,469,974
Fantaasia	180,000	160	2,000	5,846,000	107.35	2	**Yes**	486	8,816,698
Vana-Tallinn	90,000	113	5,000	2,642,500	110.87	3	Yes	454	3,422,667
Kapella	7,000	-	-	-	55.58	0	**No**	0	-
				26,429,750					**61,598,837**

total revenue	200,569,000	**fundamental drivers**		
total costs	109,228,337	capacity	sell/keep	
gross margin	91,340,663	route	shop cogs	65%
min trips for max cargo-Fantaasia	50			
PV	**81,554,163**			

route	passengers	distance	revenue	cargo	cargo filled	cargo cost	filled	shop avg cost	shop sales	shop cogs	revenue
2004/2005	*(per year)*	*(knots)*	*per passenger*	*(units)*	*(units)*	*(€)*	*(passengers)*	*(€)*	*(€)*	*(€)*	*(€)*
Tallinn-Helsinki	2,467,309	86	40.99	60,466	10,000	100	2,467,309	7.59	18,727,200	12,172,680	120,854,080
Tallinn-Aland-Stkholm	561,600	551	67.12	4,000	4,000	250	561,600	21.54	12,096,000	7,862,400	50,788,000
Paldiski-Kpskär	97,000	454	68.56	35,000	5,000	250	97,000	18.30	1,775,000	1,153,750	9,675,000
Helsinki-St.Petersburg	350,000	179	90.00	2,000	2,000	250	350,000	8.00	2,800,000	1,820,000	34,800,000
Total	3,475,909	317.5	66.66	101,466	21,000	213	3,475,909	14	35,398,200	23,008,830	**216,117,080**

ship	passengers	trip time	operational	trips	max trips	capacity
2004/2005	*(per trip)*	*(hours)*	*(num months)*	*(per yr)*	*(per yr)*	*(per yr)*
Romantika	2500	4.78	12.00	987	1,064	2,467,500
Meloodia	1600	4.78	12.00	-	1,064	-
AutoExpress	575	5.26	12.00	609	965	350,175
AutoExpress 2	700	2.26	12.00	-	2,246	-
Regina Baltica	1500	27.00	12.00	183	188	274,500
Fantaasia	1700	27.00	12.00	169	188	287,300
Vana-Tallinn	1500	25.22	12.00	68	201	102,000
Kapella	50	25.22	12.00	-	201	-

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ship	current passengers	utilization	cargo	fixed cost	fuel cost	route	keep	trip distance	fuel cost
2004/2005	*(passengers)*	*(%)*	*(units)*	*(annual)*	*(per knot)*	*(#)*	*(yes/no)*	*(knots)*	*(€)*
Romantika	**445,000**	**554**	**10,000**	**8,836,000**	**307.03**	**1**	**Yes**	**86**	**26,061,236**
Meloodia	1,200,000	-	-	-	206.51	1	No	86	-
AutoExpress	**320,000**	**109**	**7,000**	**5,124,000**	**152.81**	**4**	**Yes**	**179**	**16,658,188**
AutoExpress 2	360,000	-	-	-	185.50	1	No	86	-
Regina Baltica	**145,000**	**189**	**2,000**	**3,981,250**	**84.45**	**2**	**Yes**	**551**	**8,515,578**
Fantaasia	**180,000**	**160**	**2,000**	**5,846,000**	**107.35**	**2**	**Yes**	**551**	**9,995,886**
Vana-Tallinn	**90,000**	**113**	**5,000**	**2,642,500**	**110.87**	**3**	**Yes**	**454**	**3,422,667**
Kapella	7,000	-	-	-	55.58	3	No	454	-
			26,429,750					**64,653,555**	

total revenue	216,117,080
total costs	114,092,135
gross margin	102,024,945
min trips for max cargo-	50
PV	**72,619,341**

fundamental drivers

capacity	sell/keep	
route	shop cogs	65%

PV	**220,842,565**
Discount Rate	12%

Recommendation

The routes above present the optimal configuration for the Tallink fleet: decommission Meloodia, AutoExpress 2, and Kapella, decreasing costs significantly. Increase the frequency of the trips for Romantika, assuming a 14 hour operating period for 362.5 days, which excludes breaks and downtimes, and shift AutoExpress 1 to the Helsinki-St.Petersburg Route. It is recommended to not decommission AutoExpress 2 as the model states to do so, but to use it as a back-up craft to handle any fluctuation in demand. It costs about 10 M to support AE2 on all routes to handle demand pressures in case of increased demand during, for example, the Christmas period. Concerns with this plan would be that consumers would opt out of using Tallink services due to lack of options with regards to time and craft. To mitigate this, proceeds from the sale of the craft as well as a potential secondary private offering or IPO should be used to buy-out competitors, and then to perform the same optimization process repeated. Sample synergies are detailed below:

Consolidate Routes	- Combine routes to reduce fuel costs and aggregate capacity
Onshore Employees	- Reduce of total number of onshore employees
General Office Expenses	- Increase efficiency by reducing organizational structures
	- Reduce expenses for headquarters
Marketing and Advertisement	- Combine general marketing overheads
	- Combine advertisement and promotional expenses
On-board Goods and Vessel Costs	- Increase purchasing power over suppliers
	- Improve ticket yield management across vessels
	- Reduce overall vessel maintenance costs

Synergies sourced from Tallink company presentation 2013.

The final figures would present a valuation of €221 M with discounted operating cash flows for the next three years, without special costs such as the Russian marketing plan, which would be enough to IPO on the NASDAQ stock exchange considering that the major requirement is aggregate FCF in the prior 3 fiscal years greater than USD 27,500,000.[4] A second alternative would be to use Kapella to handle all freight between locations with a more spaced out schedule, using the freed up space to increase passenger capacity in transport ships. Note that although these models represent a large increase in margins, they are fundamentally incomplete as there is no access to precise demand figures. Instead, they can be used to highlight tradeoffs and utilization, and other parts of the value chain. For example, a Monte Carlo analysis with normality assumptions would indicate that you shouldn't buy the boat, and that geographic risks mean that you would lose more often than you would win in the proposed management project.

[4] NASDAQ

Other Points of Interest

As the project should not be pursued, it is no longer relevant to address options with Fantaasia if St. Petersburg fails. However, if the project was pursued and failed, then it is recommended that post-project implementation, the routing within the above analysis is followed.

Tallinn-Stockholm should route through Aland in order to capitalize on tax-free status and improved movement from Swedes who would be attracted to purchases. The increase in distance, calculated under the model, is worth to continue to capitalize on on-board sales and increased traffic.

High-speed crafts are better for longer trips while larger capacity conventional boats are better for incumbent markets.

Riga as an add-on destination is less important than for example, Denmark and Germany as destination points due to the higher GDP per capita. According to the world bank, the Danish GDP per Capita is USD 60,390 vs. the Latvian GDP per Capita of USD 13,410. Since over 50% of Tallink's sales are from on-store merchandise, it would be more value accretive for Tallink to purse a Copenhagen-Aland-St.Petersburg route, for example, using the AE2 in order to reduce travel time and encourage passengers.

Additional considerations include other expansion opportunities, competition with Scandinavian incumbents, multi-destination routes, and optimizing on-board sales and services. These would be covered in a more comprehensive review of the business.