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Decision Making in a Complex Environment

ANP: Final Project

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Purpose

The purpose of the paper is to determine if Porsche, a manufacturer of luxury sports cars and the world's most profitable automaker, should have introduced a Sports Utility Vehicle (SUV), and whether this decision is justified and quantified by Financial, Social and Political benefits and opportunities.

Background

Porsche is a company that thrives by building cars that go faster than most people can drive them – and that cost more than most people can afford. Because SUVs are so far afield from Porsche's traditional expertise, the new vehicle could play havoc with the Company's well-established and narrowly defined image. Porsche customers do not like change and perceive the extension of the product portfolio to be a loss of brand identity. This could result in negative spillover effects into the sports car division, leading to brand dilution.

Porsche has failed several times in the past to expand its product line. In the past it has tried to build a mid-engine car with Volkswagen, and then a front-engine car with Audi, both which were eventually discontinued.

Description

The model is designed to synthesize values to determine if Porsche should or should not introduce the SUV. The ANP model was designed with Benefits, Opportunities, Costs and Risks as the top-level criteria and within each, sub-networks that affect or have influence on that node as per the attached output from Super Decisions software for ANP. Then Benefits and Opportunities for Porsche were studied based on Financial, Social and Political criteria.

Financial benefits and opportunities took into account criteria such as Demographics (age, economic status, gender, location and race), Economic (reduced risk of takeover,


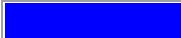
economies of scale, new markets, price and sales) and Marketing (direct mail, print, promotions, radio and TV). The political sub-network included criteria such as Competition (market demand and customer response) and Regulatory Standards (gas consumption, pollution and safety) that may be applicable to the industry if Porsche were to introduce an SUV. The social sub-network included criteria to determine trends of the SUV industry, such as brand awareness and equity, demographics, future of the SUV market and status of Porsche and its customers.

Costs and potential Risks for Porsche were mainly studied under Financial and Social effects, though Political effects could have some influence. Financial costs included Economic (design, labor, production, distribution and after market costs) and Marketing (advertising and new product introduction). Social costs included Environmental (pollution and depletion of existing resources) and Trends (brand dilution). Some possible risks that Porsche needed to consider in its decision are entering a new and possibly unfamiliar market, its late arrival in the SUV market, spreading itself too thin, increased chance of takeover, changes in market demand and trends based on increasing fuel prices, as well as the response of competitors in this industry.

Conclusion

Our perceived priorities and pair-wise comparisons were fed into the model, and gave the following synthesized values.

Alternative Rankings

Graphic	Alternatives	Priority	Ideal	Ranking
	Do not Introduce SUV	0.2833	0.3953	2
	Introduce SUV	0.7167	1.0000	1

How the alternatives fed forward

Do not Introduce SUV	Priority	Rank
Benefits	0.3491	2
Costs	0.7259	1
Opportunities	0.2200	2
Risks	0.7350	1

Introduce SUV	Priority	Rank
Benefits	0.6509	1
Costs	0.2741	2
Opportunities	0.7800	1
Risks	0.2650	2

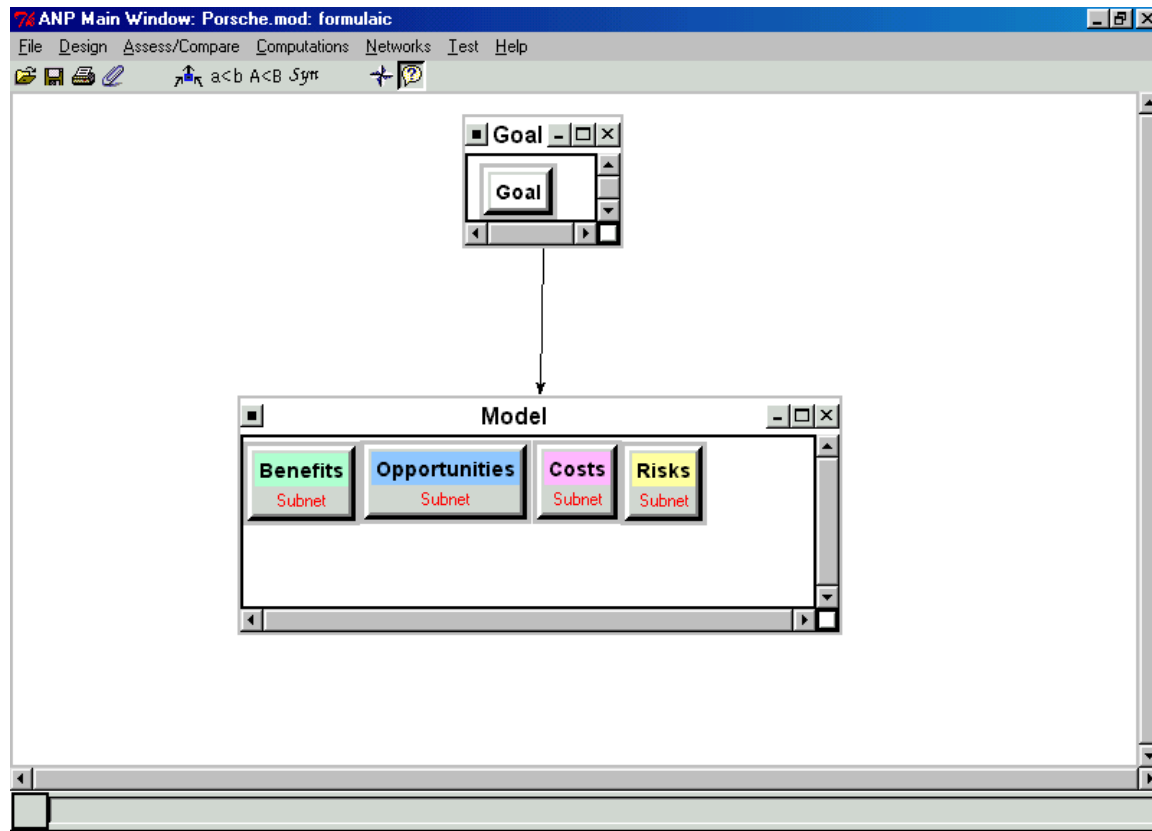
Our determination is validated by Porsche's decision to introduce an SUV, the Cayenne, sometime next year. Porsche plans to introduce the first non-sports car in its 53-year history: a four-door, four-seat vehicle with a tailgate and four-wheel drive, a SUV. Porsche is counting on the SUV to boost sales by 50% and secure the company's independence as the world's largest specialty carmaker.¹ Porsche expects to sell 75,000 vehicles by 2003, and has planned their product portfolio out to 2010, while most companies look ahead only 5 years. We believe that our model supports the decision that Porsche has made.

¹ *Fortune*: February 19, 2001

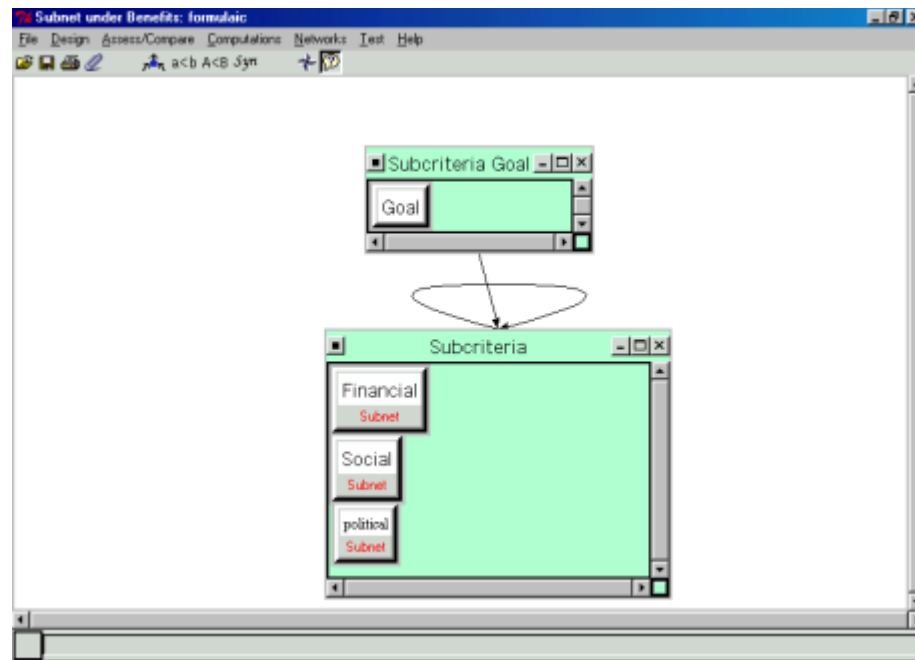
Can you believe Porsche is putting its badge on *this* car?



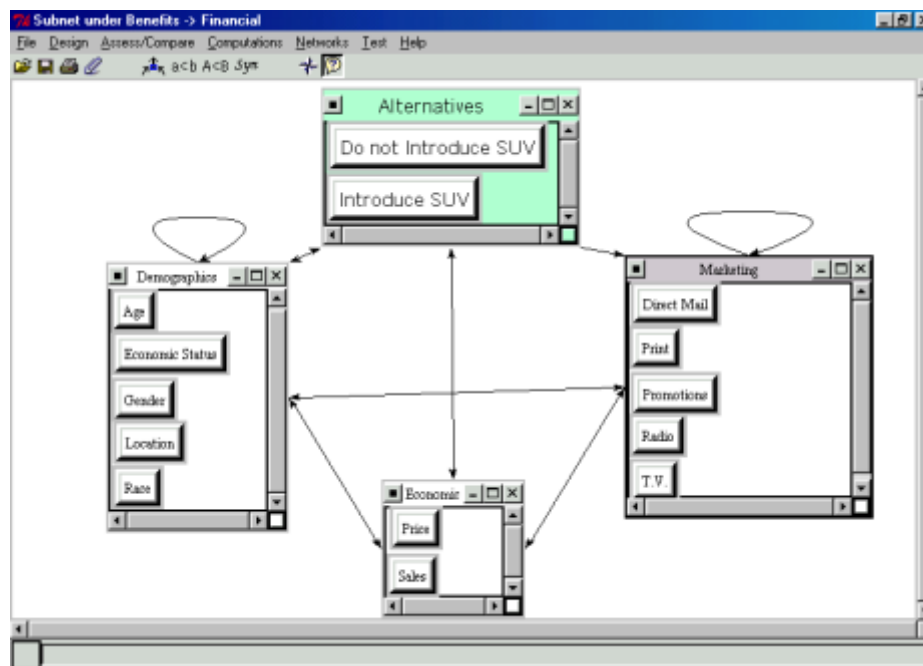
Appendix 1: Top-level Network



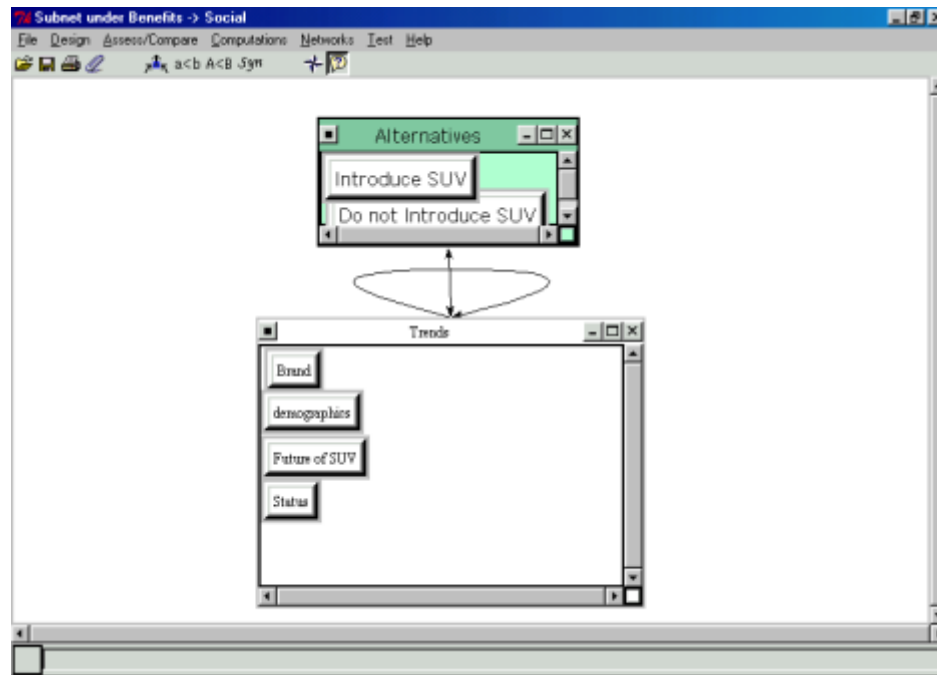
Appendix 2: Benefits Subnetwork



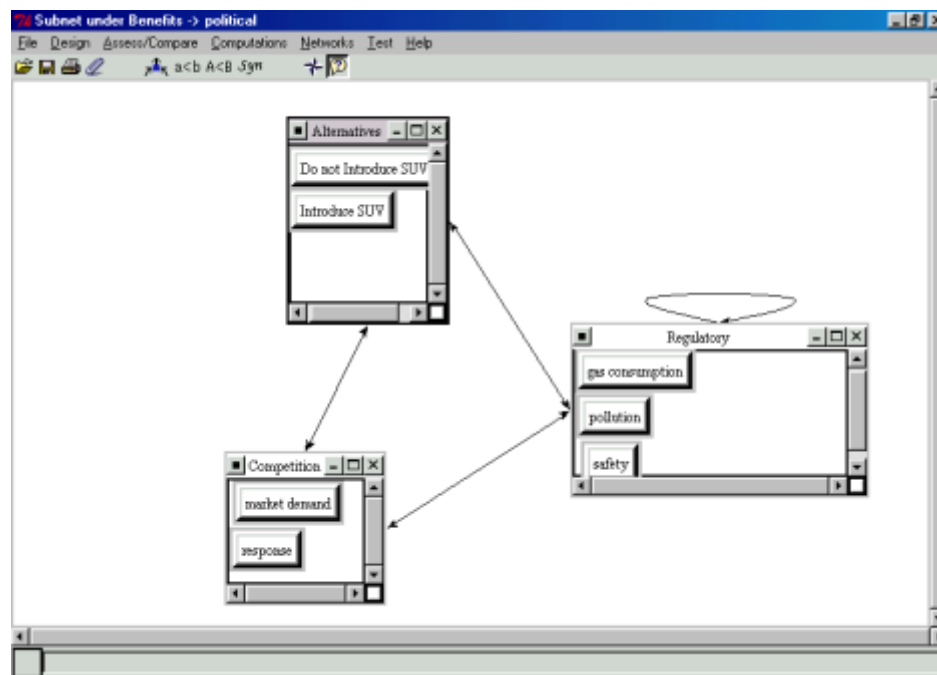
Benefits → Financial



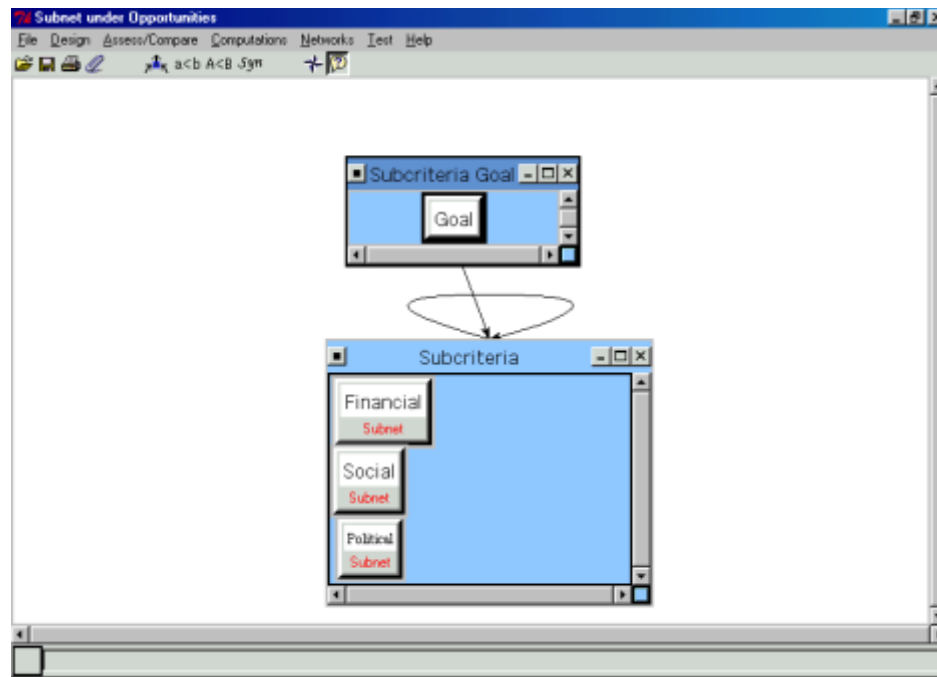
Benefits → Social



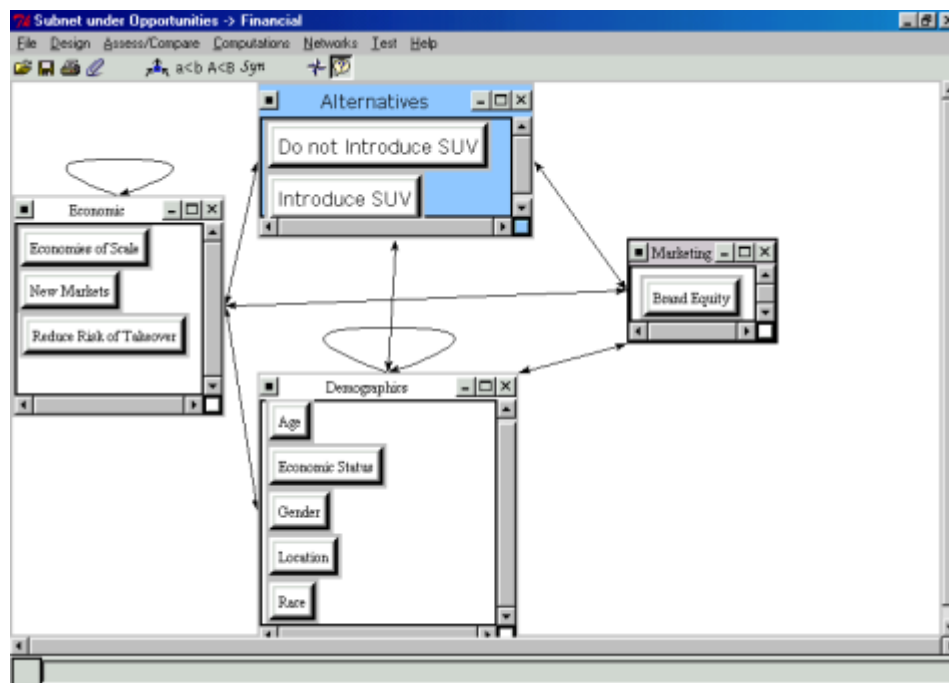
Benefits → Political



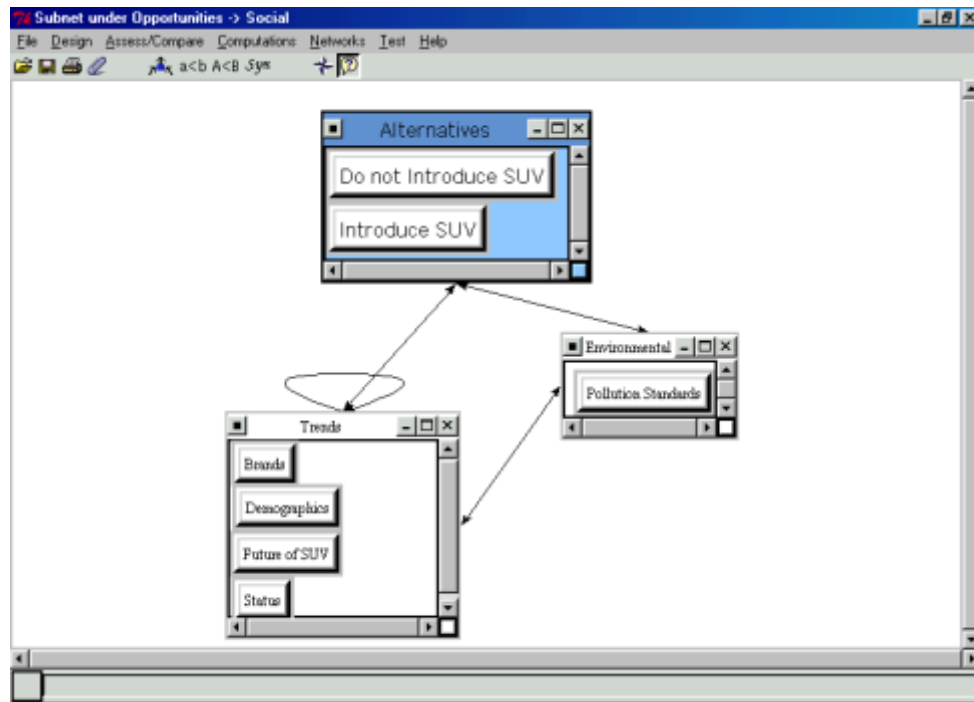
Appendix 3: Opportunities Subnetwork



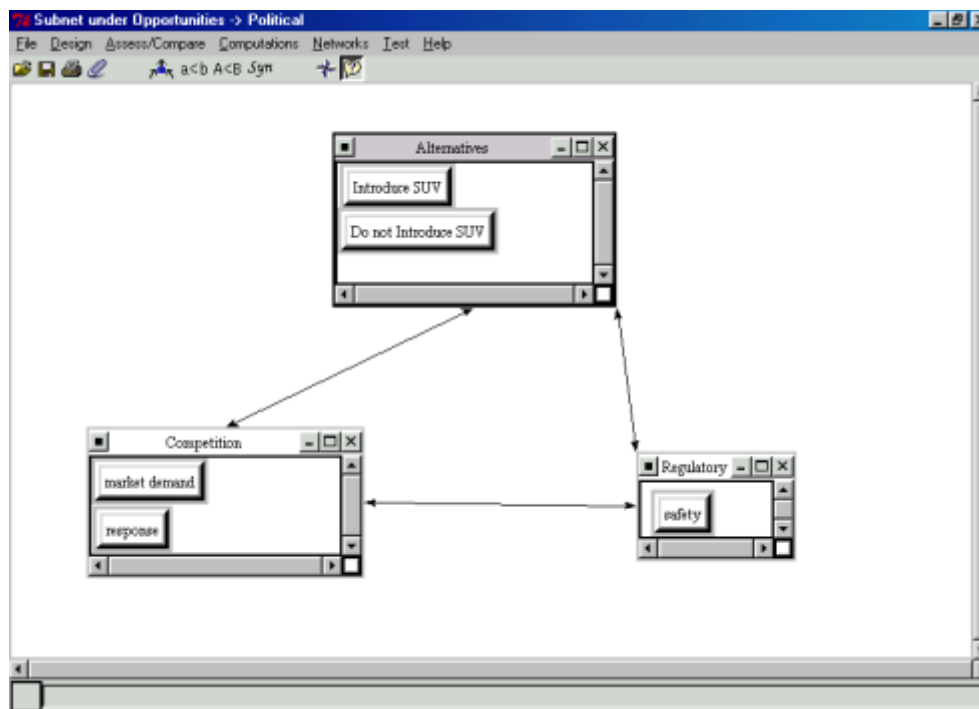
Opportunities → Financial



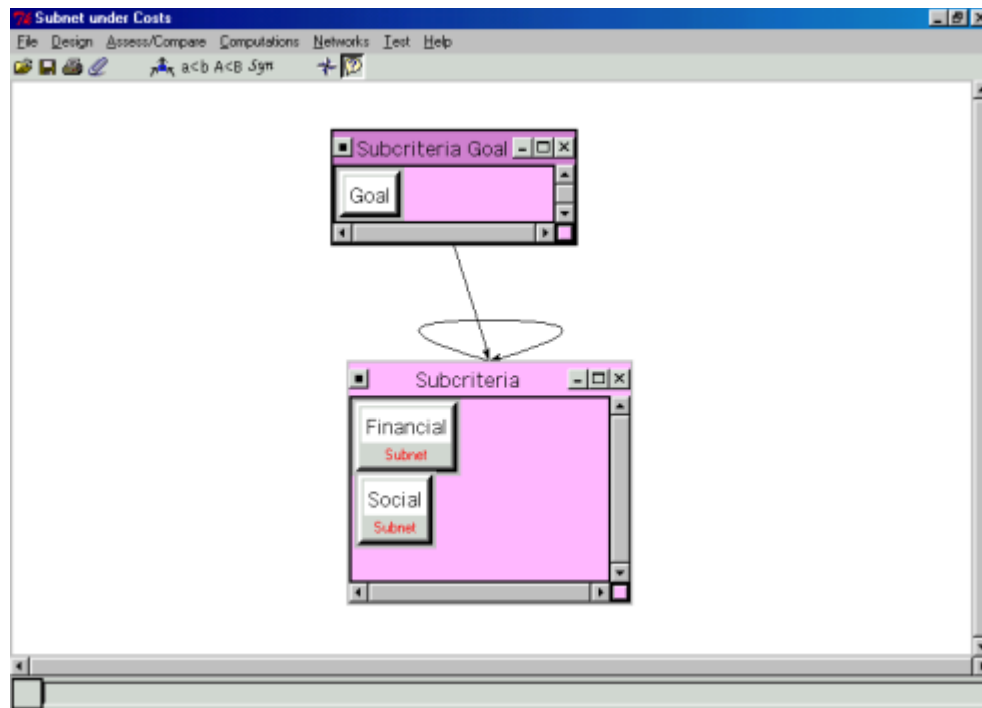
Opportunities → Social



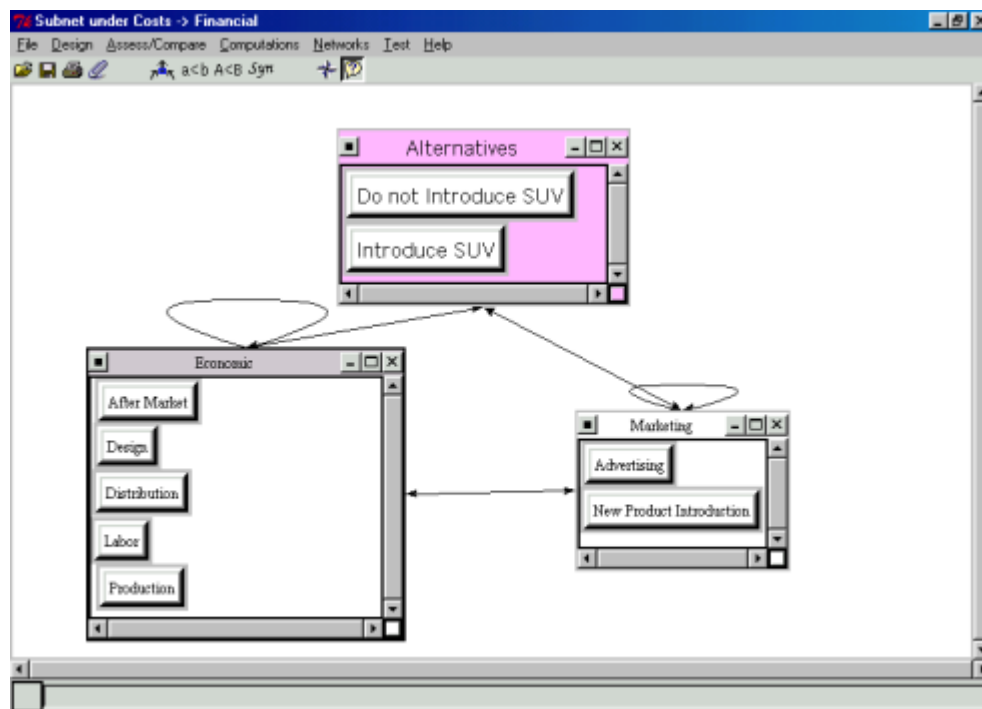
Opportunities → Political



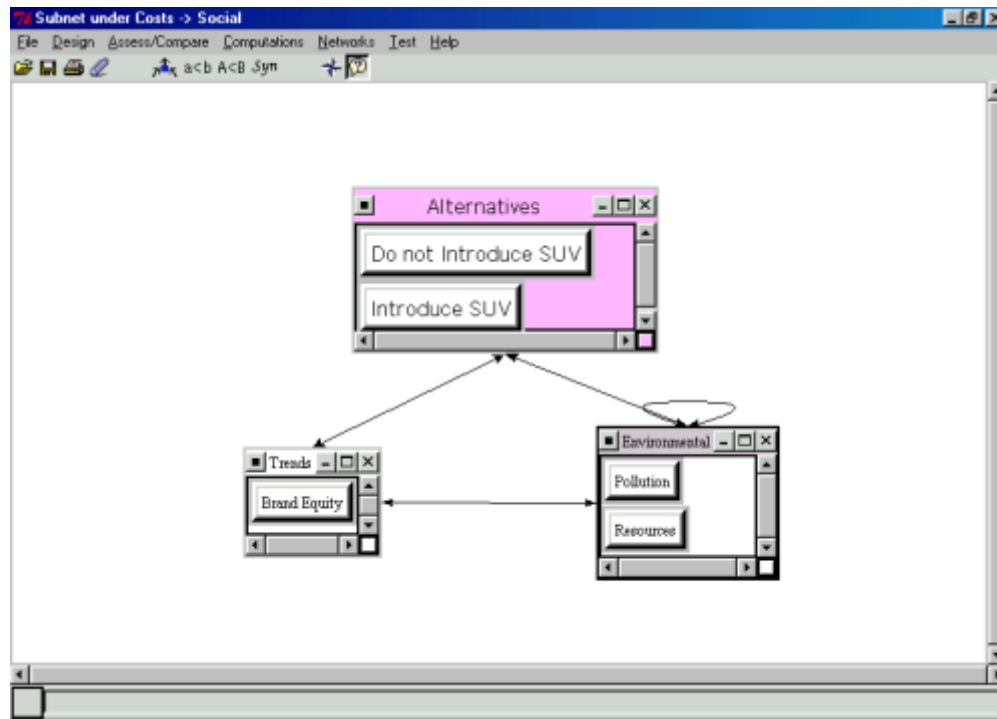
Appendix 4: Costs Subnetwork



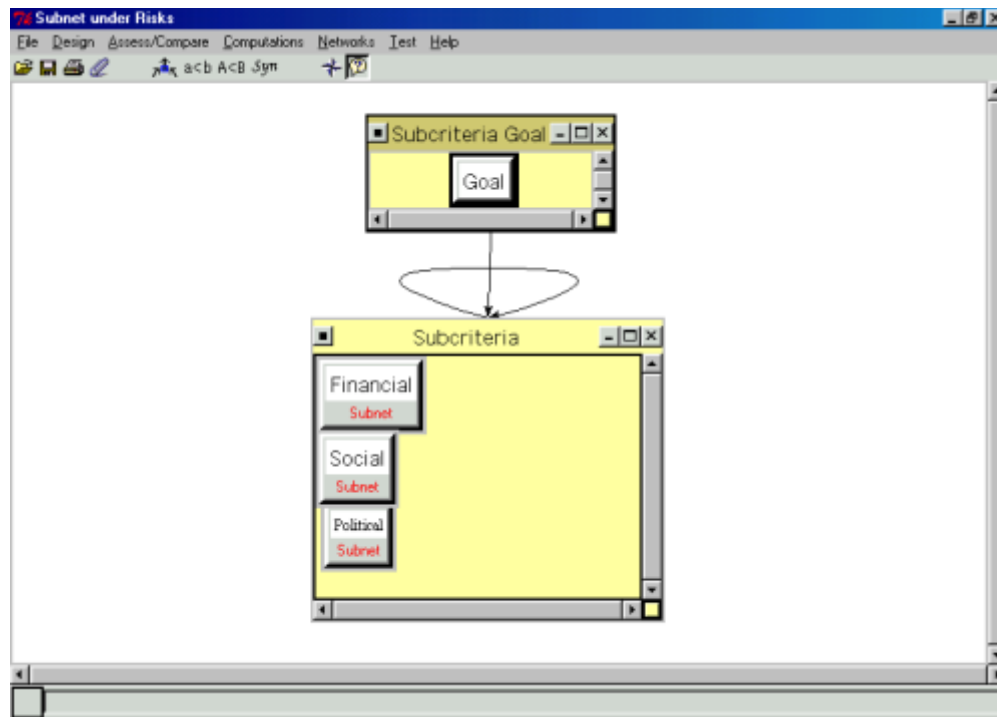
Costs → Financial



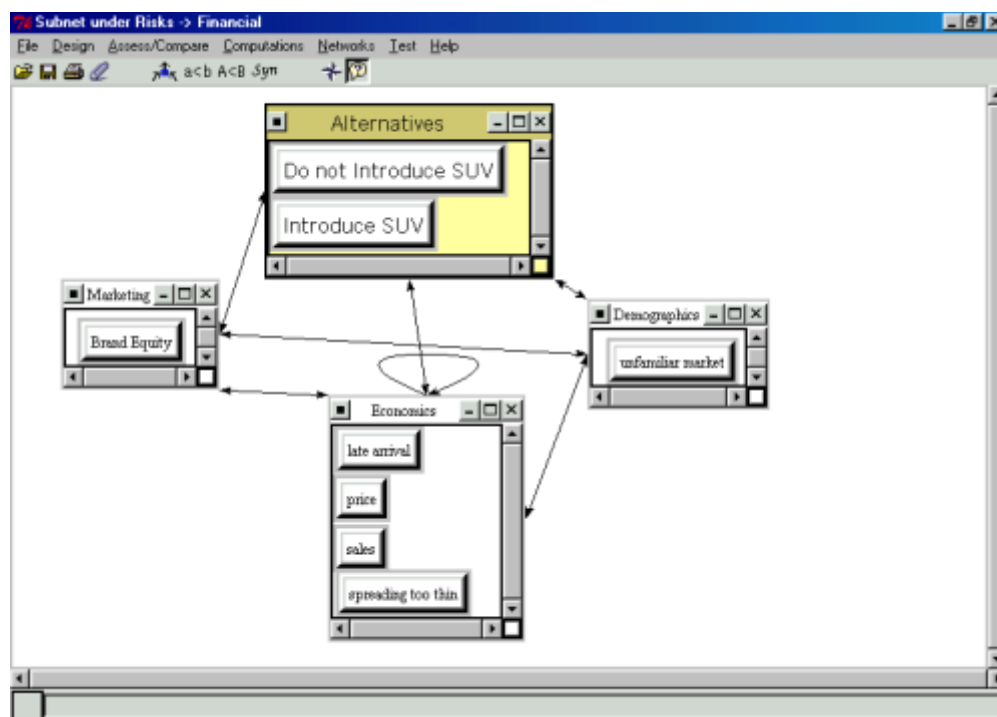
Costs → Social



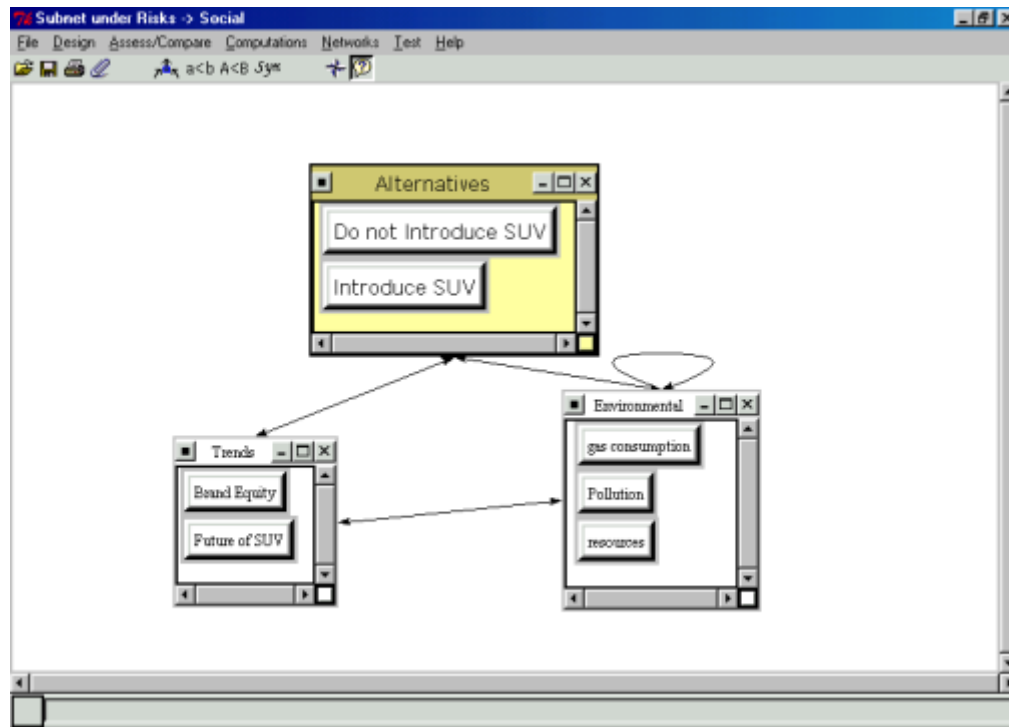
Appendix 4: Risks Subnetwork



Risks → Financial



Risks → Social



Risks → Political

