

Information Design and Presentation effects on Decision-Making Strategies and Performance

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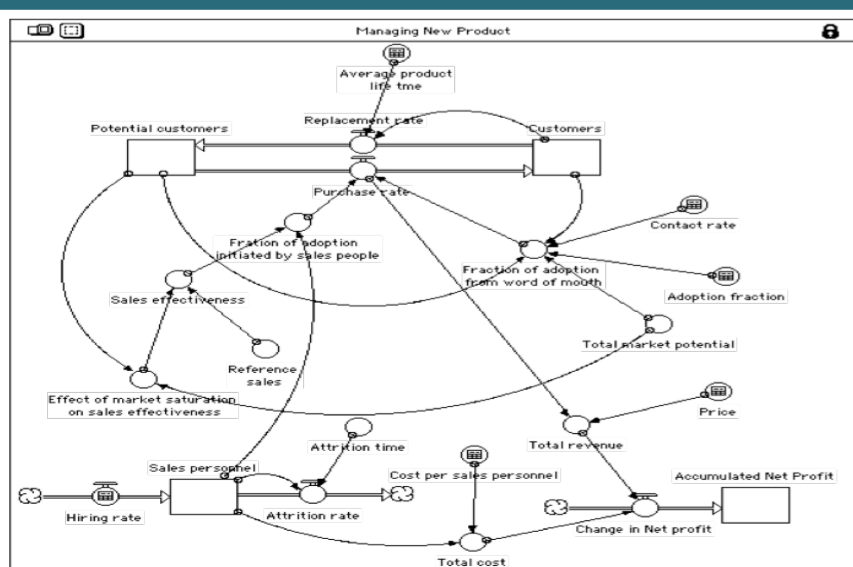
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INTRODUCTION/BACKGROUND

- ◆ Information design and presentation in a Management flight simulator is relevant to people interacting with it to grasp the complexities in the underlying model.
- ◆ The purpose of this study therefore is to determine whether or not information design and display affects decision-making process, strategies, and ultimately result in better outcome.
- ◆ This study examines the effects of information design and presentation on people's decision-making strategies and performance in a complex non-repetitive decision-making environment.
- ◆ study uses a boom and bust model for the experiment as it exemplifies a dynamic decision making scenario.

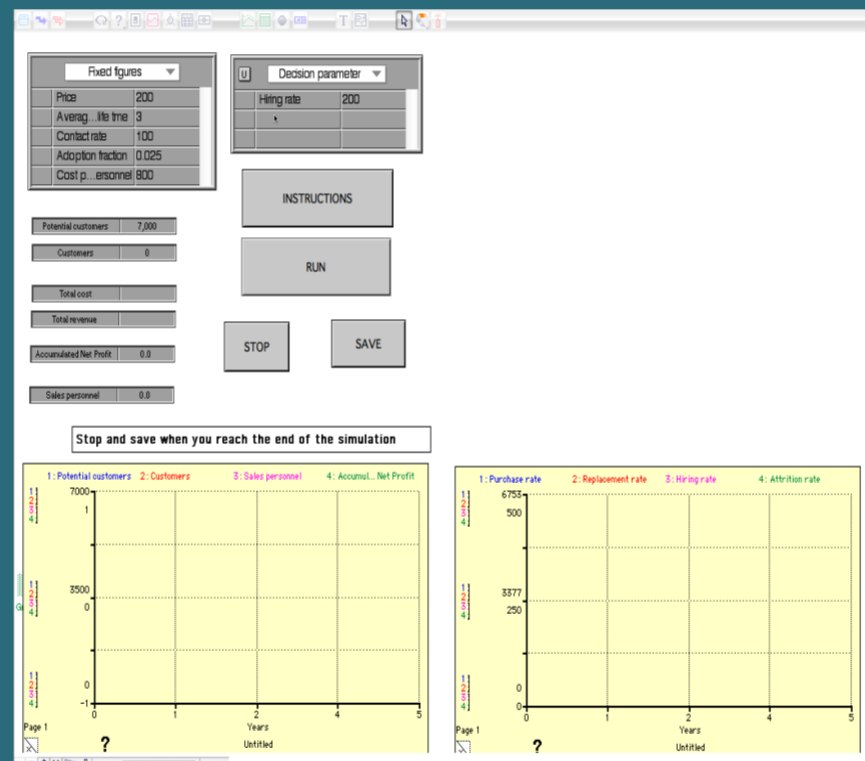
HYPOTHESIS

- H0:** "Distinction in information design and presentation/display does not have an effect on decision-making strategies and performance"
- H1:** "Distinction in information design and presentation/display affects decision-making strategies and performance" is supported by the results.
- H2:** An improvement in information design and presentation/display helps decision-makers to understand the system complexity and perform better.

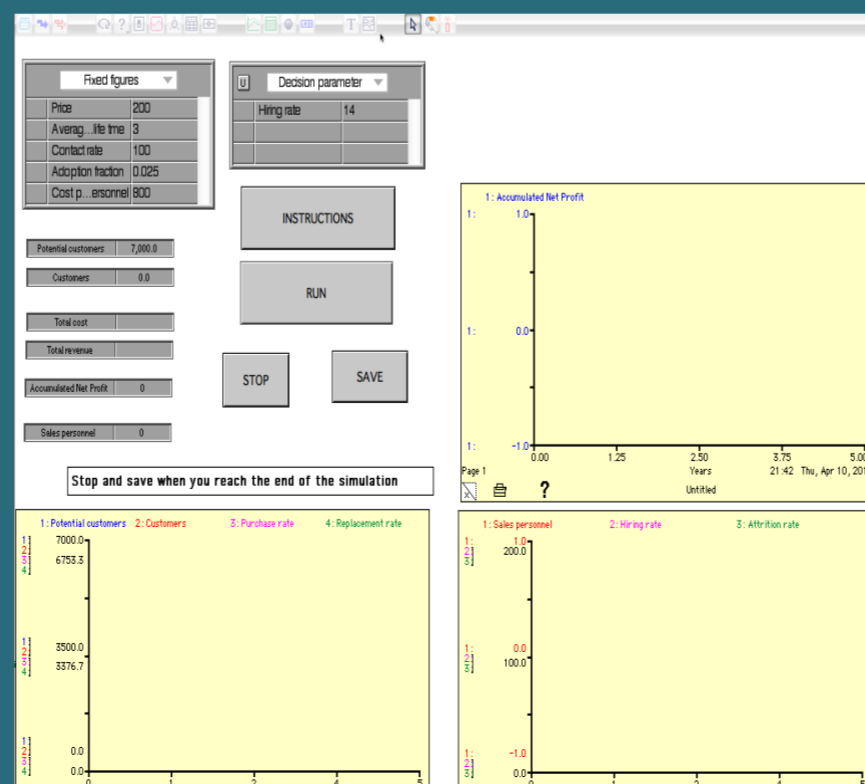


METHODOLOGY

- ◆ A model (with modifications) on the Boom and Bust, and failure to learn in experimental markets experiment by Paich and Sterman (1994) was developed for the experiment.
- ◆ A two-treatment approach where the same information but different design interfaces for treatment 1 and treatment 2 was provided to subjects in treatments 1 and 2 respectively in order to determine whether there will be significantly different performance levels in the two treatments.



INTERFACE FOR TREATMENT 2



RESULTS

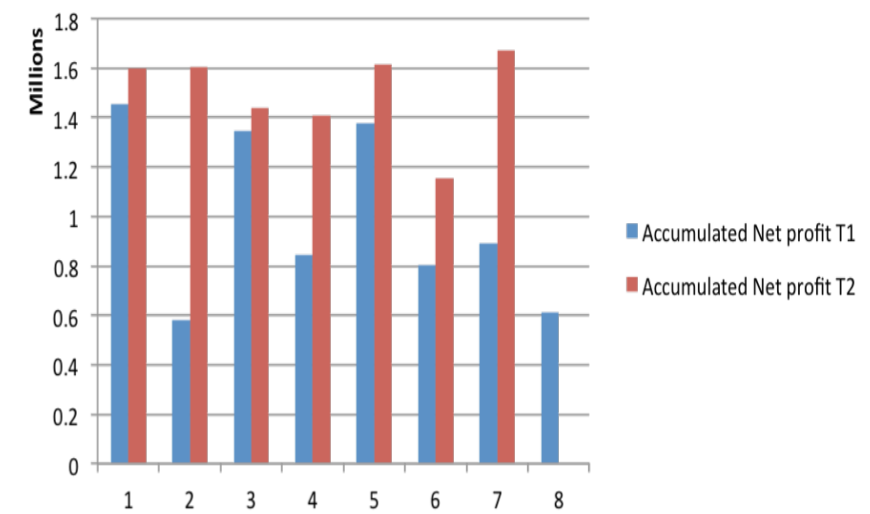


Table 2: Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
The total profit accumulated at the end of the simulation period	6.613	.023	-3.451	13	.004
			-3.598	10.7	.004

CONCLUSIONS

- ◆ The study concludes that, the way information is designed has an effect on the decision strategies and performance.
- ◆ In order to reduce the decision-making challenges in complex dynamic environment, and adopt near-optimal strategies for maximum performance, the information organization, design, and display/presentation is very essential for logical decision strategies and increased performance.
- ◆ The null hypothesis (**H0**) is rejected and whiles **H1 & H2** are supported by the findings.

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