In this seminar, we briefly discuss our research program to create a framework for categorizing current work in the field of behavioral supply chain/operations and then to expand it by conducting research that blends optimization and behavioral analysis to understand and mitigate decision biases. Factors like competition arguably increase the complexity of isolating specific decision biases and therefore it is logical that such research would follow earlier works in more simplistic settings. For example, the existing literature examines the performance of supply chain contracts, such as buyback contracts in a single retailer-single supplier setting. Therefore, our first research project considers the performance of buyback contracts when two suppliers compete for retailer effort. We find that due to a bias of retailers to under-exert effort, suppliers should never prefer to be the only one offering a buyback contract when all others offer a wholesale price contract. Furthermore, suppliers should only prefer to offer buyback contracts, rather than wholesale price contracts, when the demand distribution is such that returns are highly unlikely. Following this, in our second research project, we study how goal setting theory may impact product quality. Goal setting theory states that if goals seem too easy or too daunting, little effort is expended but, there is a middle ground in which decision makers exert more effort towards achieving goals. We link this concept with compliance with quality control rules. Our results show that the goal setting theory pattern manifests and as the number of quality control rules grows too large, workers compliance decreases and the overall quality suffers indicating that the actual worker behavior in these settings differ from the optimal results, leading to the presence of decision biases. We conclude this seminar with a call for the design of appropriate intervention strategies to mitigate decision biases in supply chain/operations management.

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