Of the five models presented in the Learning Activity titled “Predicting the Consequences,” select three and apply them to your industry, profession, or a personal organization with which you are affiliated.

The Models given in the “Predicting the Consequences” learning activity are:

1. **Statistical**: Major construction projects rely heavily on engineering predictions.
2. **Legal**: When a corporation is determining how aggressively to pursue collections, interpretation of legal statutes and precedents as well as analysis of future legal costs may dictate the company’s policy.
3. **Scientific**: Corporate research and development teams use the scientific method to assess how a product is being developed and the positive or negative reaction it elicits during the product testing phase. Another example can be seen in the growing demand for Greek yogurt, whose makers regularly utilize scientific models to evaluate the market success of their product.
4. **Deterministic model**, where the outcome is fairly certain.
5. **Probabilistic model**, where the probability of a series of outcomes is predicted.

The Models chosen are 1. Statistical. 2, Deterministic, 3. Probabilistic.

They will be applied to a construction project, the remodel of a mobile home. This was an actual job I did this year.

Statistical

Do nothing Trailer is unlivable and will cost money to dispose of, no future revenue will be gained.

Replacement The costs of purchase and setup are about 20k, but repair time is shorter. Needs permits from county and city

Repair Repair only the things broken. Requires no permit, but people will still not rent it for anything above 400 per month and will cost about four thousand.

Remodel Still no permit needed, will take about a year to do, cost about six thousand but through gradual payments, will be rentable easily for seven hundred a month or more. The longevity verses cost ratio is better than replacement.

Deterministic

Do nothing No income gained only costs

Replacement Ends with the best product but costs are high and city and county agencies get involved which may be problematic

Repair Ends with a rentable property but, may be short lived as there may be unseen areas that need repairing.

Remodel Ends with the second-best product, but takes a long time to finish, but will last almost as long as replacing the trailer. This also has the added benefit of finding and repairing hidden problems during the repair

Probabilistic

Do Nothing Demolition will have to be done on site, there may be county ordinance problems. Also a bridge will have to be built for removal of the subframe this can be expensive.

Replacement This would be very expensive as demolition would still have to occur, however, the pole barn over the trailer must also be taken down and placing the new tailor would have to be done sideways or by air. This may not even be possible.

Repair The trailer was rat infested, the attic area is sure to have unseen damage, The smell of rat dropping is overwhelming, simply repairing what is seen will not fix these issues. No demolition, No extra costs.

Remodel Many problems are sure to be found throughout the remodel process, however, these can be remedied as found. Small scale demolition which means items can be hauled away by a pickup truck.

Explain the advantages and disadvantages of using each of these models.

Advantage Disadvantage

|  |  |  |
| --- | --- | --- |
| Statistical | Looks at the numbers | Doesn’t really look at what it takes to do it |
| Legal | Keeps it in line with the law | Many times, regulations may costs more than the fines for not getting the permit. |
| Scientific | Great for Equations and Recipes, and environmental | Not good for the Human factor  Or implementation of a process |
| Deterministic | Great for see if the outcome matches the objective | Can become in accurate overtime when too many variables change |
| Probabilistic | Most useful in a sensitivity analysis | May cost money preparing for what never happens |
|  |  |  |

Lastly, if you were an administrator within an organization, explain what type of model you would find most appropriate to apply and why.

Actually, each model has its strength and a good administrator would most likely review them all, however, I feel a combination of the deterministic model and probabilistic model are the most useful. The deterministic model makes sure the end result is the objective desired, and the probabilistic model really helps to forecast expected problems which saves money and time if they occur.