the value of the transaction parameter by an amount and/or a percent of the value, such as by up to 10%, such as up to 5%, such as up to 2.5%, such as up to 1%. The outliers $+_1$, $+_2$ may be perturbed only a single transaction parameter of the plurality of transaction parameters at a time, such that each outlier $+_1$, $+_2$ is perturbed a plurality of times, in order to understand each transaction parameter's individual effect on the risk score (e.g., the payment transaction decision) for the outliers $+_1$, $+_2$.

[0106] Referring to FIG. 4, a schematic diagram shows a process of perturbing a numerical transaction parameter according to some non-limiting embodiments or aspects. The process shown includes perturbing only a single transaction parameter of the plurality of transaction parameters at a time. In FIG. 4, the process includes input values 426 [x1, x2, x3], each of the input values representing a numerical transaction parameter. The process may include perturbing the input values 426 a single transaction parameter at a time to generate a plurality of perturbed values 428. This is shown in the example from FIG. 4 by first perturbing transaction parameter x1 by +/- Δ in the first two perturbed values 428 and perturbing transaction parameter x2 by +/- Δ in the second two perturbed values 428. The perturbed values 428 may be input into the black box model 114 to analyze how each perturbation affects the risk score by analyzing the perturbed output 430. The perturbed output 430 compares the original risk score y_i with the sum of the original risk score plus the change in the original risk score Δy_i caused by the perturbed value 428 being analyzed by the black box model 114. The smaller the change in the original risk score Δy_i, the smaller the effect the perturbation of the perturbed transaction parameter has on the risk score in the instant environment of that outlier $+_1$, $+_2$. The larger the change in the original risk score Δy_i, the larger the effect the perturbation of the perturbed transaction parameter has on the risk score in the instant environment of that outlier $+_1$, $+_2$. The perturbation of the transaction parameter by a Δ (an amount) may be performed for numerical transaction parameters, which may be parameters having a numerical value in which the numerical value is associated with an amount associated with the parameter.

[0107] Referring to FIG. 5, a schematic diagram shows a process of perturbing a categorical transaction parameter according to some non-limiting embodiments or aspects. The process shown includes perturbing only a single transaction parameter of the plurality of transaction parameters at a time. In FIG. 45, the process includes input values 426 ['a', x1, x2], each of the input values representing a transaction parameter. While x1 and x2 are numerical transaction parameters as previously described, 'a' is a categorical transaction parameter in which the value of the parameter designates the category to which the value is associated. In the example of FIG. 5, the category options 532 for the first transaction parameter are ['a', 'b', 'c', 'd']. The process