burden of a user who purchases the electronic money card by constructing a payment apparatus that provides a discount when payment is performed using an electronic money card. None of the respective related art documents make mention of a reduction in the burden of a user who purchases an electronic money card.

[0007]

Here, since payment requiring a discount is restricted, the payment apparatus needs to appropriately determine whether a discount is required in a payment process. Further, generally, the amount of information capable of being stored in an electronic money card is small. Thus, even in a situation where the amount of information capable of being acquired from the electronic money card is small, the payment apparatus needs to be capable of appropriately determining whether a discount in the payment process.

[0008]

~~The~~Embodiments of the present invention ~~is~~are contrived in view of the above problems. ~~An object~~Embodiments of the present invention ~~is to~~ provide a technique for appropriately applying a discount in payment using an electronic money card.

[0009]

According to a first aspect of the present invention, there is provided a payment apparatus including: a discount amount acquisition unit acquiring a discount amount; a

determination unit determining whether or not to apply a discount to payment by card using a target card on the basis of a use history of the target card, the target card being electronic money card of a target; and a payment unit applying a discount to payment by card using the target card on the basis of the discount amount, in a case where the determination unit determines to apply a discount.

[0009a]

According to a second aspect of the present invention, there is provided a payment apparatus being communicably connected to a server apparatus including a purchase history storage unit that stores a purchase history of a product in association with a target ID, the apparatus comprising: a target ID acquisition unit acquiring the target ID; a discount amount acquisition unit acquiring a discount amount; a determination unit determining to apply a discount to a purchase price of a product, in a case where the purchase history being associated with the target ID is not stored in the purchase history storage unit; and a payment unit applying a discount to the purchase price of a product on the basis of the discount amount in a case where the determination unit determines to apply a discount, and performs payment by card using an electronic money card.

[0010]

According to a third aspect of the present invention, there is provided a control method which is executed by a computer. The control method includes: a discount amount acquisition step of acquiring a discount amount; a determination step of determining whether or not to apply a discount to payment by card

using a target card on the basis of a use history of the target card, the target card being electronic money card of a target; and a payment step of applying a discount to payment by card using the target card on the basis of the discount amount, in a case where the determination unit determines to apply a discount.

[0010a]

According to a fourth aspect of the present invention, there is provided a control method, in a state of being executed by a computer being communicably connected to a server apparatus, the server apparatus having a purchase history storage unit step of storing a purchase history of a product in association with a target ID, the method comprising: a target ID acquisition step of acquiring the target ID; a discount amount acquisition step of acquiring a discount amount; a determination step of determining to apply a discount to a purchase price of a product in a case where the purchase history being associated with the target ID is not stored in the purchase history storage unit step; and a payment step of applying a discount to the purchase price of a product on the basis of the discount amount in a case where it is determined to apply a discount in the determination step, and performing payment by card using an electronic money card.

[0011]

According to a fifth aspect of the present invention, there is provided a program causing a computer to have a function of each functional configuration unit included in the payment apparatus provided by the present

invention, to thereby cause the computer to have a function of operating as the payment apparatus provided by the present invention.

[0011a]

According to a sixth aspect of the present invention, there is provided a payment system comprising the payment apparatus and the server apparatus according to the above server apparatus.

[0012]

According to embodiments of the present invention, there is provided a technique for appropriately applying a discount in payment using an electronic money card.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013]

The above-mentioned objects, other objects, features and advantages will be made clearer from the preferred embodiments described below, and the following accompanying drawings.

[0014]

FIG. 1 is a block diagram illustrating a payment system according to Embodiment 1.

FIG. 2 is a diagram illustrating a use history stored in a use history storage unit in a table form.

FIG. 3 is a block diagram illustrating a hardware configuration of a payment apparatus.

FIG. 4 is a flow diagram illustrating a flow of processes which are executed by the payment apparatus of Embodiment 1.

FIG. 5 is a block diagram illustrating a payment apparatus of Embodiment 2 including a maximum-number-

is smaller than the discount amount.

17. The control method according to claim 16, further comprising a balance acquisition step of acquiring a balance of the target card,

wherein in the determination step, a total discount value that is the total amount of discounts applied to the purchase of products using the target card is determined using a total value of purchase prices indicated by the use history, the balance, and a total value of depositing amounts for the target card indicated by the use history, and it is determined that a discount is applied in a case where the total discount value is smaller than the discount amount, and

wherein, in the payment step, an amount equal to or less than a difference between the discount amount and the total discount value is discounted from the purchase price in a case where it is determined in the determination step that a discount is applied.

18. The control method according to claim 12,

wherein the computer is in a state of being communicably connected to a server apparatus including a second use history storage unit that stores the use history of the target card in association with a target ID,

wherein the target card includes a use history storage unit storing the use history,

21. The control method according to claim 19 or 20,

wherein the use history indicating payment by card stored in the second use history storage unit is further associated with a product ID of a product that is a target for payment by card, and

wherein, in the determination step, a use history in which a corresponding product ID is a predetermined ID is used, among the use histories stored in the second use history storage unit.

22. A control method, in a state of being executed by a computer being communicably connected to a server apparatus, the server apparatus having a purchase history storage unit step of storing a purchase history of a product in association with a target ID, the method comprising:

a target ID acquisition step of acquiring the target ID;

a discount amount acquisition step of acquiring a discount amount;

a determination step of determining to apply a discount to a purchase price of a product in a case where the purchase history being associated with the target ID is not stored in the purchase history storage unitstep; and

a payment step of applying a discount to the purchase price of a product on the basis of the discount amount in a case where it is determined to apply a

discount in the determination step, and performing payment by card using an electronic money card.

23. A program causing a computer to have a function of operating as a payment apparatus, the program causing the computer to have:

a discount amount acquisition function of acquiring a discount amount;

a determination function of determining whether or not to apply a discount to payment by card using a target card on the basis of a use history of the target card, the target card being electronic money card of a target; and

a payment function of applying a discount to payment by card using the target card on the basis of the discount amount, in a case where the determination function determines to apply a discount.

~~24. The program according to claim 23, wherein in the determination function, it is determined whether the target card has been used in payment by card, and it is determined that a discount is applied in a case where the target card has never been used in payment by card.~~

~~25. The program according to claim 24, wherein in the determination function, it is determined that the target card has never been used in payment by card in a case~~

where the use history indicating payment by card is not present.

26. The program according to claim 24, causing the computer to have a maximum number of storage items acquisition function of acquiring a maximum number of storage items of the use history capable of being stored by a use history storage unit that stores the use history,

wherein in the determination function, it is determined that the target card has never been used in payment by card, in a case where the use history indicating payment by card is not stored in the use history storage unit and the number of items of the use history stored in the use history storage unit is less than the maximum number of storage items.

27. The program according to claim 23, wherein in the determination function, it is determined that a discount is applied, in a case where a total amount of discounts applied to purchase of products using the target card is smaller than the discount amount.

28. The program according to claim 27, causing the computer to have a balance acquisition function of acquiring a balance of the target card,

wherein in the determination function, a total discount value which is the total amount of discounts

~~applied to the purchase of products using the target card is determined using a total value of purchase prices indicated by the use history, the balance, and a total value of depositing amounts for the target card indicated by the use history, and it is determined that a discount is applied in a case where the total discount value is smaller than the discount amount, and~~

~~in the payment function, an amount equal to or less than a difference between the discount amount and the total discount value is discounted from the purchase price in a case where it is determined in the determination function that a discount is applied.~~

~~29. The program according to claim 23, wherein the computer is communicably connected to a server apparatus including a second use history storage unit that stores the use history of the target card in association with a target ID,~~

~~the target card includes a use history storage unit that stores the use history,~~

~~the computer is caused to have a target ID acquisition function of acquiring the target ID, and~~

~~in the determination function, it is determined whether a discount is applied to the purchase price, on the basis of the use history stored in the use history storage unit and the use history stored in the second use history storage unit.~~

~~30. The program according to claim 29, causing the computer to have a maximum number of storage items acquisition function of acquiring a maximum number of storage items of the use history capable of being stored in the use history storage unit,~~

~~wherein in the determination function,~~

~~it is determined whether the use history corresponding to the target ID and indicating payment by card is stored in the second use history storage unit, in a case where the use history indicating payment by card is not stored in the use history storage unit, and the number of items of the use history stored in the use history storage unit and the maximum number of storage items are coincident with each other, and~~

~~it is determined that a discount is applied when the use history corresponding to the target ID and indicating payment by card is not stored in the second use history storage unit.~~

~~31. The program according to claim 29, causing the computer to have:~~

~~a maximum number of storage items acquisition function of acquiring a maximum number of storage items of the use history capable of being stored in the use history storage unit;~~

~~a balance acquisition function of acquiring a balance of the electronic money card,~~

~~wherein in a case where a discount is applied to the~~

~~purchase price, a use history indicating a purchase price before a discount is stored in the use history storage unit and the second use history storage unit,~~

~~in the determination function, a second total discount value which is a total amount of discounts applied to purchase of products using the target card is determined using a total value of purchase amounts indicated by the use history corresponding to the target ID, the balance, and a total value of depositing amounts for the target card indicated by the use history corresponding to the target ID, in a case where the number of items of the use history stored in the use history storage unit and the maximum number of storage items are coincident with each other, and it is determined that a discount is applied in a case where the second total discount value is smaller than the discount amount, and~~

~~in the payment function, an amount equal to or less than a difference between the discount amount and the second total discount value is discounted from the purchase price in a case where it is determined in the determination function that a discount is applied.~~

~~32. The program according to claim 30 or 31, wherein the use history indicating payment by card stored in the second use history storage unit is further associated with a product ID of a product which is a target for payment by card, and~~

~~in the determination function, a use history in which~~

~~a corresponding product ID is a predetermined ID is used, in the use history stored in the second use history storage unit.~~

~~33. A program causing a computer to have a function of operating as a payment apparatus,~~

~~wherein the computer is communicably connected to a server apparatus having a purchase history storage function of storing a purchase history of a product in association with a target ID, and~~

~~the program causes the computer to have~~

~~a target ID acquisition function of acquiring the target ID,~~

~~a discount amount acquisition function of acquiring a discount amount,~~

~~a determination function of determining that a discount is applied to a purchase price of a product, in a case where the purchase history corresponding to the target ID is not stored in the purchase history storage function, and~~

~~a payment function of applying a discount to the purchase price of a product on the basis of the discount amount in a case where it is determined in the determination function that a discount is applied, and performing payment by card using an electronic money card.~~

~~34~~24. A payment system comprising the payment apparatus and the server apparatus according to any one of claims 7 to 11.