

A SYSTEM AND METHOD FOR CARRYING OUT AN APPRAISAL FOR AT LEAST ONE GOOD/SERVICE

Field of the Invention

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The present invention relates to a system and method for carrying out an appraisal for at least one good/service.

Background

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Digital Ordering Solutions

There are currently many solutions using digital devices for ordering and paying for goods and services from merchants using computers, smartphones, tablets and the like.

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A common method of ordering goods and services is for consumers to visit the merchant website, view items, add them to a virtual shopping cart, and then check out using a merchant designed check-out flow. Such methods typically require several steps which differ from merchant to merchant. This can be frustrating and inconvenient for consumers. Some payment entity services such as, for example, PayPalTM, Amazon PaymentsTM, Visa CheckoutTM, and MasterCard PaypassTM have attempted to simplify this process by setting up cloud based digital accounts/wallets to carry out requisite transactions. However, these solutions do not normalize the process of browsing and selecting items, and are also exposed to a number of types of fraud attacks. For example, a man-in-the-middle attack can be perpetrated at a merchant whose payment pages have been compromised, whereby instead of redirecting consumers to a cloud based payment solution, consumers are instead redirected to a fraudulent website. Payment information can then be collected at the fraudulent website and subsequently transmitted to the cloud based payment solution, unbeknownst to the merchant, cloud based payment solution, and customer. This stolen payment information can then be used to carry out a fraudulent transaction(s). Fraudulent transactions resulting from such

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attacks result in billions of dollars of losses for financial institutions. Much of these costs are eventually borne by consumers and merchants.

In another aspect, the availability of tablet computers have enabled a new generation of digital ordering solutions. Merchants, commonly restaurants, are deploying tablet computer based ordering devices from which consumers may order goods and services when at the premises. However, the cost of many of such deployments is high since they typically entail costs such as, for example, multiple device purchases, software, staff training, installation, integration, customer support, maintenance and so forth. Many consumers find these devices less intuitive and less desirable compared to traditional ordering. Some of these solutions provide devices that offer self-checkout payment solutions which are typically also not well received by consumers. It is unfortunate if consumers boycott the merchants due to the digital ordering solutions, particularly after the expense laid out by the merchants.

Another method of ordering goods and services is by enabling consumers to generate orders by capturing graphical indicia, such as two or three dimensional barcodes which embed information on data representing items and/or locations. One disadvantage of graphical indicia is that there are typically constraints in order for the graphical indicia to be appropriately captured. For example, capturing three dimensional barcodes (QR codes) requires the reader to be within a certain distance and have minimum lighting conditions. A second and related disadvantage is that graphical indicia create clutter on menus and catalogs. The combination of these two disadvantages is problematic if the menu is located away from the consumer. A third disadvantage is that many consumers dislike/are averse to scanning graphical indicia. Common consumer complaints include, for example, not knowing how to scan such indicia, confusion as to which mobile app to use, not being able to appropriately capture the graphical indicia, slow response due to issues like excessive load times, and so forth.

Another solution for ordering goods and services is by enabling consumers to generate orders by the detection of signals from tags, using wireless technologies such as near field communication (NFC). Such solutions are typically short range applications, and require the

consumer to be within a distance of usually less than two centimeters. Thus, it would be ineffective when a menu is located a distance away from the consumer. Furthermore, the cost and complexity of procuring, installing, managing, and maintaining such solutions can be greater than what is acceptable for many small and medium sized merchants. Thirdly, use of such tags requires that consumers understand how to turn on the NFC function of their device, which is not appealing to some consumers as maintaining NFC functionality on a device drains battery power.

An increasing number of merchants have deployed smartphone apps to enable the ordering of goods and services by their consumers. However, the inconvenience to set-up each app for respective merchants is inconvenient to consumers. Many consumers also find the user experience of the single merchant model sufficiently poor such that they do not adopt more than one or two of these apps, usually for their most frequently visited merchants. Correspondingly, such apps have questionable economic benefits to the merchants.

Furthermore, existing solutions for the merchant apps typically require a central Internet connected server to process order messages, and correspondingly, consumers with Internet access. Although smartphone penetration has increased substantially, the percentage of the population that have Internet data access when they are visiting a merchant location is typically lower than smartphone penetration. This is partially due to consumers not having data roaming capabilities when travelling to a foreign country. Thus, requiring use of an Internet connected server restricts use of apps to consumers who have Internet access, and excludes those who do not.

As a result of the disadvantages from existing solutions, consumers still prefer to order goods and services using traditional ways like communicating orders verbally to merchant staff.

Rating Items

Existing methods for collecting and generating ratings for items such as, for example, goods, services, apps, content, destinations, people, and establishments commonly use known

methodologies. For example, one method uses a Likert scale, which prompts respondents to select a point on a linear scale to provide a rating. Individual ratings are then averaged to generate a rating score for an item. Such rating methods have shortcomings. For example, implementations are too lengthy and/or complex, resulting in low user participation. Another difficulty is that different solutions are used across different industries, companies, and geographies, which leads to an unappealing user experience and correspondingly, reduces participation rates. As a result of low participation rates, ratings are only representative of a subset of users who can be biased. Rather than discrimination per se, one common bias results from a tendency of users to provide ratings when their experience is highly positive or highly negative and not when their experience is within expectations. This can lead to undesirable situations where merchants are associated with bipolar/bimodal ratings, where a disproportionate minority of negative ratings become representative of the merchant. Other than issues for the merchant, revenue for rating portals also are adversely affected as fewer merchants seek to be listed on the rating portals. Another shortcoming is that ratings generated from a small number of rating users are particularly vulnerable to bias. Personalization methods such as collaborative filtering and weighting attempt to mitigate bias have been used to mitigate the bias. However, costs escalate exponentially as users and rating numbers grow. The total number of ratings for X users across Y items is a product of X and Y, which grows exponentially as X and Y increase. Each of these ratings may need to be recalculated with each new rating input. This can result in marginal costs becoming greater than marginal revenue. In addition, marginal processing time may become longer than acceptable latency to users, making personalized ratings difficult.

Another shortcoming relates to how existing rating systems do not provide sufficient granularity to easily differentiate top rated items. On a typical 5-star rating system using a single decimal for presentment of ratings, there are only 11 rating categories for items with a high rating from 4.0 to 5.0, and this is especially problematic if there are millions of items in a category, e.g. books or restaurants. Even if a system attempts to mitigate this shortcoming by generating a rating output on a scale with a higher number of points than the input scale, the quality of the output is only as good as the quality of the input. For example, a 5-star rating system may present its results with three decimals, thus creating 5000 possible rating

scores. However, the more detailed rating is not necessarily statistically significant. On the other hand, asking users to rate items on a 5000 point scale will lead to fewer and less consistent ratings.

5 Cashless Payments

Ordering apps typically accept credit cards as their main form of payment instead of physical currency. Handling physical currency typically adds additional steps/inconveniences/vulnerabilities to transaction processing. However, some users prefer to use physical currency due to long established behavioral habits and are reluctant to embrace full cashless payments.

There is a need for an integrated ordering, rating and payment system that address these shortcomings.

Summary

In a first aspect, there is provided a system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

- initiate, at a user device, at least one request for the at least one good/service;
- transmit, from the user device, the at least one request for the at least one good/service;
- receive, at a central server, at least one request to allocate at least one vote to a user;
- receive, at the central server, the at least one vote of the user; and
- determine, at the central server, a rating of the at least one good/service. It is preferable that the rating is dependent on an aggregation of votes received at the central server.

There is also provided a data processor implemented method for carrying out an appraisal for at least one good/service, the method comprising:

- initiating, at a user device, at least one request for the at least one good/service;

transmitting, at the user device, the at least one request for the at least one good/service;

receiving, at a central server, at least one request to allocate at least one vote to a user;

receiving, at the central server, the at least one vote of the user; and

5 determining, at the central server, a rating of the at least one good/service. It is preferable that the rating is dependent on an aggregation of votes received at the central server.

There is also provided a central server configured for carrying an appraisal for at least one good/service, the central server including one or more data processors configured to:

receive, data relating to an ID of the at least one good/service;

receive, at least one request to allocate at least one vote to a user;

receive, from a user device, the at least one vote of the user; and

15 determine, a rating of the at least one good/service. Preferably, the rating is dependent on an aggregation of votes received at the central server.

In another aspect, there is provided a non-transitory computer readable storage medium embodying thereon a program of computer readable instructions which, when executed by one or more processors of a central server in communication with at least one user device and at least one merchant device, cause the central server to carry out a method for carrying an appraisal for at least one good/service, the method embodying the steps of:

receiving, data relating to an ID of the at least one good/service;

receiving, at least one request to allocate at least one vote to a user;

receiving, from a user device, the at least one vote of the user; and

25 determining, a rating of the at least one good/service. Preferably, the rating is dependent on an aggregation of votes received at the central server.

There is also provided a system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

30 initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one

good/service, the at least one good/service costing a transaction amount;

input, at the user device, a payment amount of physical currency for the at least one good/service; and

process, at the central server, a remainder amount of physical currency subsequent to deduction of the transaction amount from the payment amount. It is advantageous that the remainder amount of physical currency is stored at a digital wallet.

Furthermore, there is a data processor implemented method for carrying out an appraisal for at least one good/service, the method comprising:

initiating, at a user device, at least one request for the at least one good/service;

transmitting, from the user device, the at least one request for the at least one good/service, the at least one good/service costing a transaction amount;

inputting, at the user device, a payment amount of physical currency for the at least one good/service; and

processing, at the central server, a remainder amount of physical currency subsequent to deduction of the transaction amount from the payment amount. It is preferable that the remainder amount of physical currency is stored at a digital wallet.

Another aspect provides a system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one good/service;

receive, at the user device, biometric information from a provider of the at least one good/service; and

validate, at a central server, the biometric information.

A further aspect provides a system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one

good/service;

receive, at the user device, a digital stamp from a provider of the at least one good/service; and

validate, at a central server, the digital stamp.

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A final aspect provides a system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one
10 good/service, the at least one good/service costing a transaction amount;

input, at the user device, a payment amount of physical currency for the at least one good/service;

process, at the central server, a remainder amount of physical currency subsequent to deduction of the transaction amount from the payment amount,

15 receive, at the user device, a digital stamp from a provider of the at least one good/service;

validate, at a central server, the digital stamp;

receive, at the central server, at least one request to allocate at least one vote to a user;

receive, at the central server, the at least one vote of the user;

20 determine, at the central server, a rating of the at least one good/service. Preferably, the rating is dependent on an aggregation of votes received at the central server. and the remainder amount of physical currency is stored at a digital wallet.

It will be appreciated that the broad forms of the invention and their respective features can
25 be used in conjunction, interchangeably and/or independently, and reference to separate broad forms is not intended to be limiting.

Brief Description of the Drawings

30 A non-limiting example of the present invention will now be described with reference to the accompanying drawings, in which:

FIG 1 is a flow chart of an example of a method for carrying out an appraisal for at least one good/service;

FIG 2 is a schematic diagram of an example of a system for carrying out an appraisal for at least one good/service;

FIG 3 is a schematic diagram showing components of an example user device of the system shown in FIG 2;

FIG 4 is a schematic diagram showing components of an example server shown in FIG 2;

FIG 5 is a schematic diagram showing components of an example payment system shown in FIG 2; and

FIGs 6 to 16 respectively show specific examples of a method for carrying out an appraisal for at least one good/service.

Detailed Description

Embodiments of the present invention provide users with a method and system for carrying out an appraisal for at least one good/service. The method and system can be carried out for a desired merchant in a situation where a user carrying out the appraisal need not be using a device connected to the Internet. In addition, the appraisal for the at least one good/service is also carried out in a manner which is less subjective and more equitable.

An example of a broad overview of a method for carrying out an appraisal for at least one good/service will now be described with reference to FIG 1.

For the purpose of illustration, it is assumed that the method can be performed at least in part using one or more electronic processing devices which form part of a user device, such as mobile phones, portable computers, tablet computers, wearable devices, or the like. The user device is typically also in communication with a merchant device and a central server. The merchant device can also be, for example, mobile phones, portable computers, tablet computers, wearable devices, point-of-sale devices, kitchen appliances or the like. The central server can be administered by an entity administering to ratings of respective

merchants/goods/services (rating entity). The central server is communicatively coupled to a payment system which may include a number of processing devices associated with each of an issuer, acquirer, stored value payment system, card network and payment gateway, or alternatively, the payment system may be any one or more of these entities and this will be
5 discussed further below.

In some embodiments, payment is carried out using conventional non-cashless, handing over of currency type of processes. It should be noted that the handing over of currency can be carried out as either an advance payment, or upon completion of a requisite task/service.

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For the purpose of illustration, "merchant" can be used to refer to a group of merchants, whereby the merchants in the group can be associated by, for example, having a common owner, providing similar goods/services, being part of an alliance, and so forth.

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In this example, at step 110, the one or more electronic processing devices initiate a request for a good/service into an application provided by the rating entity. The request can include data to identify a specific good/service from a merchant, for example, a serial/item number of a good, a merchant ID providing the service, a name of the good/service, any combination of the aforementioned, and so forth. It should be appreciated that initiating the request is
20 dependent on a graphical user interface of the application provided by the rating entity (rating application). Alternatively, the rating entity can partner with one or more entities to provide the application. In some embodiments, the graphical user interface may be a website, web portal and so forth. For example, the user can key in respective IDs, can select respective goods/services from a list, can choose an image representing the good/service and so forth.

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The good/service ID can also be determined from, either one dimensional barcodes or two dimensional barcodes. In such instances, images of the barcodes are captured using an image capturing device of the user device. In some embodiments, the application is integrated into a third party application, for example, applications provided by the user's banking institution or by a retailing entity.

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At step 120, the one or more electronic processing devices submit at least one request for the good/service which was input at step 110. The at least one request can be akin to the user making an order for the desired good/service such that a merchant will be informed of what the user desires to purchase. In some embodiments, the user will be informed via the application if the order for the good/service cannot be fulfilled by the merchant, which can be helpful in minimising disappointment for the user as the user will be able to seek out another merchant who provides the desired good/service, and/or which can also allow a change for the order.

At step 130, the one or more electronic processing devices initiates a payment request such that the desired good/service can be paid for by the user. This can be carried out either before or after consumption of the desired good/service by the user. In some embodiments, the payment can be carried out using cashless processes, such as, for example, by using the digital wallet(s) of the user, whereby funds are credited to the merchant's account digitally for consumption of the desired good/service by the user. In some embodiments, the digital wallet application can be provided by a third party, such as, for example, MasterPassTM, AppleTM Pay, GoogleTM Pay, or the like. In some embodiments, the application can incorporate a stored value account functionality, which provides the user with access to, for example, a proprietary stored value account, bank accounts, prepaid instruments, PayPalTM accounts, AlipayTM accounts, and so forth. In other embodiments, the payment can be carried out using conventional non-cashless, handing over of physical currency type of processes. For such non-cashless instances, the payment request (processed by the central server) can include both a request for payment amount by the user, and a request for an acknowledgement of receipt by the merchant. In this regard, once the payment request is appropriately processed, the merchant is able to receive payment for providing the user with the desired good/service. If a physical currency type of payment is carried out leading to the merchant owing funds (that is, change) to the user, the central server then transmits the funds to the user electronically. It should be appreciated that this timely payment to the merchant is advantageous in relation to loss of takings due to dishonesty amongst staff of the merchants, and the prompt payment for the good/service provided by the merchant also aids in maintaining a positive cash flow for the merchant.

Subsequently, at step 140, processing is carried out of the at least one request so as to determine a vote allocation for the user. It should be appreciated that the vote allocation depends on many aspects, for example, the user's spending behaviour, the user's social media influence, the user's activeness on social media, and so forth. Other aspects being considered include, for example, aggregation of transaction counts, transaction amounts, merchant counts, merchant amounts, merchant category counts, merchant category amounts, item counts, item category counts, item amounts, item category amounts, transaction category counts, transaction category amounts, frequency of transactions, regularity of transactions, payment type, transaction status (rejected, refunded), instances of participating in reviewing/rating/ranking/connecting/referring/following/upvoting/liking a good/service, merchant, contributing media (a photo, a video, and/or a sound recording), and so forth.

Determining the vote allocation for users aids in preventing biased ratings and unequitable ratings. For example, a user who is more familiar with a particular sort of cuisine (more transactions for meals of the particular sort of cuisine) will have a higher vote allocation for that particular sort of cuisine as the user would be considered to be an expert in the particular sort of cuisine, so the higher vote allocation would be advantageous in ensuring that the users are unlikely to be ignorant of what they are voting for. It should be appreciated that vote allocation includes applying different weights based on demographic data, and/or collaborative filtering. In some embodiments, the voting allocation is also based on a categorisation of the user.

Once the vote allocation for the user is determined, the vote by the user is subsequently submitted at step 150. Scoring of the votes can include using placed vote data to calculate a count, rank, percentile, weight, rating, grade, award, medal, tier, and/or a proprietary rating. In some embodiments, when the users participate in voting, the users are provided with recognition for participating in voting. In some embodiments, provision of the scoring of the votes is restricted only to some users. In some embodiments, incentives like reward points, promotional pricing, and the like are provided to users to incentivise them to provide votes,

so that there is a wide base of voters and high numbers of votes which aid in normalizing the scoring of the votes.

At step 160, ratings of the at least one good/service are determined based on aggregation of votes, whereby a wide base of voters and high numbers of votes aid in normalizing the scoring of the votes, correspondingly providing a reliable voting score for the at least one good/service.

Accordingly, the above described method provides a number of advantages.

As described in preceding paragraphs, embodiments of the present invention aid in minimising disappointment for the user as the user will be able to seek out another merchant who provides the desired good/service during instances of a shortage of the desired good/service. Embodiments of the present invention are also able to minimise loss of takings due to dishonesty amongst staff of the merchants, and also aids in maintaining a positive cash flow for the merchant. Furthermore, determining the vote allocation for users aids in preventing biased ratings and unequitable ratings. Moreover, incentivising users to provide votes also leads to a wide base of voters and a high numbers of votes which aid in normalizing the scoring of the votes, correspondingly provides a reliable voting score for the at least one good/service.

An example of a system for carrying out an appraisal for at least one good/service will now be described with reference to FIG 2.

In this example, the system 200 includes one or more user and merchant devices 220 running a rating application which can incorporate a digital wallet application, a communications network 250, a central server 260, and a payment system 240 in communication with a database 241. Generally, the one or more user and merchant devices 220 are in communication with each other, and the central server 260 using a wireless communication technology such as, for example, BluetoothTM, IEEE 802.11, Wi-Fi Direct, AirPlayTM, and so forth. In addition, the central server 260 is in communication with the payment system 240

via the communications network 250. The communications network 250 can be of any appropriate form, such as the Internet and/or a number of local area networks (LANs). It will be appreciated that the configuration shown in FIG 2 is for the purpose of example only.

5 ***User/Merchant Device 220***

The user/merchant device 220 of any of the examples herein may be a handheld computer device such as a smart phone or a PDA such as one manufactured by Apple™, LG™, HTC™, Blackberry™, Samsung™, Huawei™, Xiaomi™, Google™, Sony™, and so forth.

10 The user/merchant device 220 may include a mobile computer such as a tablet computer. Furthermore, the user/merchant device 220 may also include a wearable device like a smartwatch. An exemplary embodiment of a user/merchant device 220 is shown in FIG 3. As shown, the device 220 includes the following components in electronic communication via a bus 306:

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1. a display 302;
2. non-volatile memory 303;
3. random access memory ("RAM") 304;
4. N processing components 301;
- 20 5. a transceiver component 305 that includes N transceivers;
6. an image capture module 310; and
7. user controls 307.

Although the components depicted in FIG 3 represent physical components, FIG 3 is not intended to be a hardware diagram; thus many of the components depicted in FIG 3 may be realized by common constructs or distributed among additional physical components. Moreover, it is certainly contemplated that other existing and yet-to-be developed physical components and architectures may be utilized to implement the functional components described with reference to FIG 3.

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The display 302 generally operates to provide a presentation of content to a user, and may be realized by any of a variety of displays (e.g., CRT, LCD, HDMI, micro-projector and OLED displays). And in general, the non-volatile memory 303 functions to store (e.g., persistently store) data and executable code including code that is associated with the functional components of a browser component and applications, and in one example, a rating application (incorporating a digital wallet application) 309. In some embodiments, for example, the non-volatile memory 303 includes bootloader code, modem software, operating system code, file system code, and code to facilitate the implementation of one or more portions of the payment application 308 as well as other components well known to those of ordinary skill in the art that are not depicted for simplicity.

In many implementations, the non-volatile memory 303 is realized by flash memory (e.g., NAND or ONENAND memory), but it is certainly contemplated that other memory types may be utilized as well. Although it may be possible to execute the code from the non-volatile memory 303, the executable code in the non-volatile memory 303 is typically loaded into RAM 304 and executed by one or more of the N processing components 301.

The N processing components 301 in connection with RAM 304 generally operate to execute the instructions stored in non-volatile memory 303 to effectuate the functional components. As one of ordinary skill in the art will appreciate, the N processing components 301 may include a video processor, modem processor, DSP, graphics processing unit (GPU), and other processing components.

The transceiver component 305 includes N transceiver chains, which may be used for communicating with external devices via wireless networks. Each of the N transceiver chains may represent a transceiver associated with a particular communication scheme. For example, each transceiver may correspond to protocols that are specific to local area networks, cellular networks (e.g., a CDMA network, a GPRS network, a UMTS networks), and other types of communication networks. The transceiver component 305 can also use a wireless communication technology such as, for example, BluetoothTM, IEEE 802.11, Wi-Fi Direct, AirPlayTM, and so forth.

The image capture module 310 includes an image sensor, which may be used for capturing images of either one or two dimensional barcodes for determining the good/service ID. The image capture module 310 can be a camera or a dedicated barcode reader.

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Central Server 260

The central server 260 of any of the examples herein may be formed of any suitable processing device, and one such suitable device is shown in FIG 4.

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In this example, a processing device is provided by a computer system 400 in communication with a database 401, as shown in FIG 4. The computer system 400 is able to communicate with the user/merchant devices 220, the payment system 240, and/or other processing devices, as required, over a communications network 250 or directly with the respective devices.

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The components of the computer system 400 can be configured in a variety of ways. The components can be implemented entirely by software to be executed on standard computer server hardware, which may comprise one hardware unit or different computer hardware units distributed over various locations, some of which may require the communications network 250 for communication. A number of the components or parts thereof may also be implemented by application specific integrated circuits (ASICs) or field programmable gate arrays.

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In the example shown in FIG 4, the computer system 400 is a commercially available server computer system based on a 32 bit or a 64 bit Intel architecture, and the processes and/or methods executed or performed by the computer system 400 are implemented in the form of programming instructions of one or more software components or modules 402 stored on non-volatile (*e.g.*, hard disk) computer-readable storage 403 associated with the computer system 400. At least parts of the software modules 402 could alternatively be implemented as

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one or more dedicated hardware components, such as application-specific integrated circuits (ASICs) and/or field programmable gate arrays (FPGAs).

The computer system 400 includes at least one or more of the following standard,
5 commercially available, computer components, all interconnected by a bus 405:

1. random access memory (RAM) 406;
2. at least one computer processor 407, and
3. external computer interfaces 408:
 - 10 a. universal serial bus (USB) interfaces 408.1 (at least one of which is connected to one or more user-interface devices, such as a keyboard, a pointing device (*e.g.*, a mouse 409 or touchpad),
 - b. a network interface connector (NIC) 808.2 which connects the computer system 400 to a data communications network (such as the Internet)
 - 15 250;
 - c. a direct interface connector (DIC) which connects the computer system 400 to the user/merchant devices 220 using a wireless communication technology such as, for example, BluetoothTM, IEEE 802.11, Wi-Fi Direct, AirPlayTM, and so forth; and
 - 20 d. a display adapter 408.3, which is connected to a display device 410 such as a liquid-crystal display (LCD) panel device.

The computer system 400 includes a plurality of standard software modules, including:

- 25 1. an operating system (OS) 411 (*e.g.*, Linux or Microsoft Windows);
2. web server software 412 (*e.g.*, Apache, available at <http://www.apache.org>);
3. scripting language modules 413 (*e.g.*, personal home page or PHP, available at <http://www.php.net>, or Microsoft ASP); and

4. structured query language (SQL) modules 414 (*e.g.*, MySQL, available from <http://www.mysql.com>), which allow data to be stored in and retrieved/accessed from an SQL database.

5 Together, the web server 412, scripting language 413, and SQL modules 414 provide the computer system 400 with the general ability to allow users of the Internet 250 with standard computing devices equipped with standard web browser software to access the computer system 400 and in particular to provide data to and receive data from the database 401. It will be understood by those skilled in the art that the specific functionality provided by the system
10 400 to such users is provided by scripts accessible by the web server 412, including the one or more software modules 402 implementing the processes performed by the computer system 400, and also any other scripts and supporting data 415, including markup language (*e.g.*, HTML, XML) scripts, PHP (or ASP), and/or CGI scripts, image files, style sheets, and the like.

15 The boundaries between the modules and components in the software modules 402 are exemplary, and alternative embodiments may merge modules or impose an alternative decomposition of functionality of modules. For example, the modules discussed herein may be decomposed into submodules to be executed as multiple computer processes, and,
20 optionally, on multiple computers. Moreover, alternative embodiments may combine multiple instances of a particular module or submodule. Furthermore, the operations may be combined or the functionality of the operations may be distributed in additional operations in accordance with the invention. Alternatively, such actions may be embodied in the structure of circuitry that implements such functionality, such as the micro-code of a complex
25 instruction set computer (CISC), firmware programmed into programmable or erasable/programmable devices, the configuration of a field- programmable gate array (FPGA), the design of a gate array or full-custom application-specific integrated circuit (ASIC), or the like.

30 Each of the steps of the processes performed by the computer system 400 may be executed by a module (of software modules 402) or a portion of a module. The processes may be

embodied in a non-transient machine-readable and/or computer-readable medium for configuring a computer system to execute the method. The software modules may be stored within and/or transmitted to a computer system memory to configure the computer system to perform the functions of the module.

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The computer system 400 normally processes information according to a program (a list of internally stored instructions such as a particular application program and/or an operating system) and produces resultant output information via input/output (I/O) devices 408. A computer process typically includes an executing (running) program or portion of a program, current program values and state information, and the resources used by the operating system to manage the execution of the process. A parent process may spawn other, child processes to help perform the overall functionality of the parent process. Because the parent process specifically spawns the child processes to perform a portion of the overall functionality of the parent process, the functions performed by child processes (and grandchild processes, etc.) may sometimes be described as being performed by the parent process.

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It should be appreciated that the central server 260 can be administered by a rating entity.

Payment System 240

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A suitable payment system 240 for use in the system described in any of the above examples is shown in FIG 5. It should be appreciated that the payment system 240 as shown can also be known as a payment module with tasks executed on at least one server.

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In this example, the payment system 240 is a server (though in practice, the system 240 will comprise multiple such servers) that includes at least one microprocessor 500, a memory 501, an optional input/output device 502, such as a display, keyboard, touchscreen and the like, and an external interface 503, interconnected via a bus 504 as shown. In this example the external interface 503 can be utilised for connecting the payment server 240 to the communication networks 250, databases 241, other storage devices, or the like. Although a single external interface 503 is shown, this is for the purpose of example only, and in practice

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multiple interfaces using various methods (e.g. Ethernet, serial, USB, wireless or the like) may be provided.

In use, the microprocessor 500 executes instructions in the form of applications software stored in the memory 501 to allow communication with the central server 260, for example to process payment required at the central server 260. The applications software may include one or more software modules, and may be executed in a suitable execution environment, such as an operating system environment, or the like.

Accordingly, it will be appreciated that the payment system 240 may be formed from any suitable processing system, such as any electronic processing device, including a microprocessor, microchip processor, logic gate configuration, firmware optionally associated with implementing logic such as an FPGA (Field Programmable Gate Array), or any other electronic device, system or arrangement. Thus, in one example, the processing system is a standard processing system such as an Intel Architecture based processing system, which executes software applications stored on non-volatile (e.g., hard disk) storage, although this is not essential.

In other examples, such as described above, the payment system 240 is formed of multiple computer systems interacting, for example, via a distributed network arrangement. As distributed networking is known in the art, it will not be described further in more detail.

In particular, the payment system 240 may include or be in communication with a number of processing systems associated with each of an issuer, acquirer, card network and payment gateway, or alternatively, the payment system may be any one or more of these entities. In some embodiments, any number of the processing systems is enabled by verification of biometric information of the user. The biometric information of the user can include, for example, fingerprints, retinas, and so forth.

In one example, the payment system 240 sends the user account information and payment information to the merchant's acquirer. The acquirer then requests that the card network get

an authorization from the user's issuing bank. The card network submits the transaction to the issuer for authorization and the issuing bank then authorizes the transaction if the account has sufficient funds to cover the amount payable. The issuer then routes payment to the acquirer (in subsequent settlement and clearance processes as known in the art) who then deposits the payment into the merchant's account.

In another embodiment, the payment system 240 alternatively manages a stored value system whereby users prepay funds into a prepaid account set up for the user to debit or credit. The central server 260 can be configured to validate the number of credits remaining in the prepaid account and deduct from the account as appropriate.

In another embodiment, the payment system 240 manages a subscription or credit system whereby users pay for a subscription or credit for recurring supply of pre-determined goods/services. The payment system 240 can be configured to do periodic or ad hoc payments. Access to goods/services can be managed according to the level of the subscription and/or the number of credits purchased. For subscriptions, the payment processing does not require immediate payment processing, but rather the central server 260 validates whether the user account has a subscription that was previously paid or otherwise granted by the central server 260. For credits, the central server 260 can validate the number of credits remaining in the user account and deduct from these credits as appropriate.

To illustrate further features of preferred practical implementations of the method for carrying out an appraisal for at least one good/service, various detailed examples will now be described with reference to FIGs 6 to 16.

In the various implementations that will be described below, it should be noted that various scenarios relating to interconnectivity of devices are contemplated and correspondingly described.

Referring to FIG 6, there is shown a first implementation of the method. It should be noted that the first implementation relies on a central server being communicatively coupled to a user device and a payment system. The method is carried out in the following manner:

- 5 1) The user device is used to select a merchant, the instructions being input to the central server.
- 2) The central server then optionally provides a menu associated with the merchant to the user device.
- 3) The user device is then used to submit at least one request (order) for the at least one
10 good/service to the central server.
- 4) The central server then carries out processing of payment for the at least one request by communicating with a payment system.
- 5) The central server then optionally transmits an acknowledgement of receipt to the user device.
- 15 6) The central server then provides a vote allocation to the user device, possibly in the same acknowledgment message of step 5, in accordance to parameters as mentioned in an earlier portion of the description.
- 7) The user device is then used to provide a vote to the central server, whereby the central server tracks and/or counts the vote.
- 20 8) The central server then applies a requisite payment or credit to a respective merchant account.

Even though the order of steps indicated above is indicated in FIG 6, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where
25 appropriate.

Referring to FIG 7, there is shown a second implementation of the method. It should be noted that the second implementation relies on a central server being communicatively coupled to a user device, a merchant device and a payment system. The method is carried out in the
30 following manner:

- 1) The user device is used to select a merchant, the instructions being input to the central server.
- 2) The central server then provides a menu associated with the merchant to the user device.
- 3) The user device is then used to submit at least one request (order) for the at least one
5 good/service to the central server.
- 4) The central server then carries out processing of payment for the at least one request by communicating with a payment system.
- 5) Data for the at least one request is then transmitted to the merchant device.
- 6) The merchant device then optionally transmits an acknowledgement to the central server.
- 10 The merchant then proceeds to provide the at least one good/service to the user as per the at least one request.
- 7) Subsequently, the central server transmits an acknowledgement of receipt to the user device.
- 8) The central server provides a vote allocation to the user device, in accordance to
15 parameters as mentioned in an earlier portion of the description, possibly in the acknowledgement message of step 7.
- 9) The user device is then used to provide a vote to the central server, whereby the central server tracks and/or counts the vote.
- 10) The central server then applies a requisite payment or credit to a respective merchant
20 account.

It should be appreciated that there can be instances when electronic payments involving the payment system is not carried out. In those instances, conventional non-digital payment processes can be carried out in place of step 4 described above.

25

Even though the order of steps indicated above is indicated in FIG 7, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

30 Referring to FIG 8, there is shown a third implementation of the method. It should be noted that the third implementation also relies on a central server being communicatively coupled

to a user device, a merchant device and a payment system. However, the user device and the merchant device are also communicatively coupled to one another. An ordering step is not contemplated for this implementation, but this implementation is likely to follow an earlier order which has already been placed and associated with a request ID. The method is carried
5 out in the following manner:

1) The user device is used to select a merchant.

2) The user device then transmits a customer ID and at least one payment amount to the merchant device.

10 3) The merchant device then transmits a payment request to the central server.

4) The central server then optionally carries out processing of payment for the at least one request by communicating with a payment system.

5) The central server then optionally transmits a payment authentication request to the user device.

15 6) The user device then optionally transmits a payment authentication to the central server.

7) The central server then optionally carries out processing of payment for the at least one request by communicating with a payment system.

8) The central server then transmits a payment confirmation to the merchant device.

9) The central server then provides a vote allocation to the user device, in accordance to
20 parameters as mentioned in an earlier portion of the description.

10) The user device is then used to provide a vote to the central server, whereby the central server tracks and/or counts the vote.

It should be appreciated that there can be instances when electronic payments involving the
25 payment system is not carried out. In those instances, conventional non-digital payment processes can be carried out in place of steps 3 to 6 described above.

Even though the order of steps indicated above is indicated in FIG 8, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where
30 appropriate.

Referring to FIG 9, there is shown a fourth implementation of the method. It should be noted that the fourth implementation relies on a central server being communicatively coupled to a user device and a payment system. The user device and the merchant device are communicatively coupled to one another. The method is carried out in the following manner:

5

1) The user device is used to select a merchant, the instructions for response being input to the merchant.

2) The merchant device then optionally provides a menu associated with the merchant to the user device.

10 3) The user device is then used to submit at least one request (order) for the at least one good/service to the merchant device.

4) The merchant device then transmits a payment request to the user device.

5) The user device then transmits a payment request to the central server. Payment information can be input into the user device prior to transmission of the payment request.

15 The payment information can be registered and stored at the central server or a module accessible by the central server. If the payment information has been prior registered, the user device can facilitate authentication such that stored payment information is used to process the payment for the transaction.

20 6) The central server then carries out processing of payment for the at least one request by communicating with a payment system.

7) The central server then transmits a signed token to the user device.

8) The user device also transmits the signed token to the merchant device.

9) The central server then provides a vote allocation to the user device, in accordance to parameters as mentioned in an earlier portion of the description.

25 10) The user device is then used to provide a vote to the central server, whereby the central server tracks and/or counts the vote.

11) The central server then applies a requisite payment or credit to a respective merchant account.

It should be appreciated that there can be instances when electronic payments involving the payment system are not carried out. In those instances, conventional non-digital payment processes can be carried out in place of steps 4 to 6 described above.

- 5 Even though the order of steps indicated above is indicated in FIG 9, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

Referring to FIG 10, there is shown a fifth implementation of the method. It should be noted
10 that the fifth implementation relies on a central server being unreachable at some junctures, and where the user device and the merchant device are communicatively coupled to one another. The method is carried out in the following manner:

- 1) The user device is used for a payment registration process with the central server.
- 15 2) The central server then carries out processing of payment for the at least one request by communicating with a payment system.
- 3) The central server then transmits a signed token to the user device.

Steps 1 to 3 are typically carried out at a prior juncture before beginning engagement with a
20 specific merchant.

Step 4 is initiated once the user begins engagement with the specific merchant.

- 4) The user device is used to select a merchant, the instructions for response being
25 transmitted to the merchant device.
- 5) The merchant device then optionally provides a menu associated with the merchant to the user device.
- 6) The user device is then used to submit at least one request (order) for the at least one good/service and a signed token to the merchant device.
- 30 7) The merchant device then transmits a payment request to the central server.

8) The central server then carries out processing of payment for the at least one request by communicating with a payment system.

9) The central server then transmits a payment receipt and vote allocation to the merchant device as depicted in 9a1. If the user device is connected to the merchant device, the merchant device transmits the payment receipt and vote allocation to the user device as depicted in 9a2, in accordance to parameters as mentioned in an earlier portion of the description. If the user device is not connected to the merchant device, the central server transmits the vote allocation to the user device as depicted in 9b(possibly at a later juncture).

10) If the user device is connected to the central server, the user device is used to provide a vote to the central server as depicted in 10a. If the user device is not connected to the central server, the user device is then used to provide a vote to the merchant device as depicted in 10a1, and the merchant device transmits the vote to the central server as depicted in 10a2, whereby the central server tracks and/or counts the vote.

11) The central server then applies a requisite payment or credit to a respective merchant account.

It should be appreciated that there can be instances when electronic payments involving the payment system is not carried out. In those instances, conventional non-digital payment processes can be carried out in place of steps 7 to 8 described above.

Even though the order of steps indicated above is indicated in FIG 10, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

Referring to FIG 11, there is shown a sixth implementation of the method. It should be noted that the sixth implementation relies on a central server being unreachable at some junctures, and where the user device and the merchant device are communicatively coupled to one another. In this implementation, the user device includes a digital wallet which includes a preloaded stored value. The method is carried out in the following manner:

1) The user device transmits an authentication and token request to the central server.

2) The central server then carries out processing of payment for the at least one request by communicating with a payment system.

3) The central server then transmits a signed token to the user device.

5 Steps 1 to 3 are typically carried out at a prior juncture before beginning engagement with a specific merchant. Step 4 is initiated once the user begins engagement with the specific merchant.

4) The user device is used to select a merchant, the instructions for response being
10 transmitted to the merchant device.

5) The merchant device then optionally provides a menu associated with the merchant to the user device.

6) The user device is then used to submit at least one request (order) for the at least one good/service.

15 7) The merchant device then optionally transmits a payment request to the user device.

8) The user device transmits a signed token to the merchant device (possibly in the request message of step 6).

9) The merchant device then transmits a signed token to the central server (possibly at a later juncture).

20 10) The central server then instructs a requisite payment to be made to an account associated with the merchant.

11) The central server then transmits a vote allocation to the user device. The vote allocation should be in accordance to parameters as mentioned in an earlier portion of the description.

12) If the user device is connected to the central server, the user device is used to provide a
25 vote to the central server.

Even though the order of steps indicated above is indicated in FIG 11, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

Referring to FIG 12, there is shown a seventh implementation of the method. It should be noted that the seventh implementation relies on a central server being communicatively coupled to a user device, a merchant device and a payment system. This implementation uses a digital stamp, which is a device that can conduct/transmit a unique pattern/signal to a user device using capacitive touch points. Prior to the carrying out of the method, the merchant registers at least one unique digital stamp at the central server. Multiple digital stamps may be registered such that each merchant staff member uses a unique stamp. The method is carried out in the following manner:

- 1) The user device is used to select a merchant, and to submit at least one request (order) for the at least one good/service, the instructions being input to the central server.
- 2) Optionally, the central server then carries out processing of payment for the at least one request by communicating with the payment system.
- 3) Data for the at least one request is then transmitted to the merchant device.
- 4) Optionally, the merchant device then transmits a request acceptance to the central server.
- 5) Subsequently, the central server transmits an order confirmation to the user device.
- 6) The user device then receives a digital stamp for patronising the merchant. This digital stamp is conducted/transmitted by the merchant on an order confirmation/receipt page shown on the user device.
- 7) The user device transmits data of the digital stamp to the central server.
- 8) The central server validates the data of the digital stamp using data previously associated with the merchant.
- 9) The central server then transmits a validation response message to the user device.
- 10) Optionally, the merchant device and/or the payment system then receive confirmation of payment being carried out.

Once the digital stamp is validated the user device can then be utilised to provide an allocated vote associated with the at least one good/service provided by the merchant. This vote may optionally be limited to a pre-determined duration of time. It should be appreciated that there can be instances when electronic payments involving the payment system is not carried out.

In those instances, conventional non-digital payment processes can be carried out at or about step 6 described above.

Even though the order of steps indicated above is indicated in FIG 12, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

The use of the digital stamp in a physical currency transaction enables a user-friendly way for merchant staff to securely authenticate a transaction. The act of stamping a payment confirmation page on the user device is similar to the real world action of stamping a paper receipt with an ink stamp, so it can be intuitive and symbolic for users who have reservations pertaining to modern payment technology. As the digital stamp is conducted/transmitted on the confirmation page shown on the user device, the user device must be present. This reduces the likelihood that the user will dispute the transaction. Another advantage of a digital stamp is that its unique pattern is not easily reproduced, in particular compared to using a PIN code or a gesture pattern.

Furthermore, by using the digital stamp as shown in FIG 12, fraud related cash transactions perpetrated by merchants can also be minimised. For instance, traditional cash transactions are often difficult to track, consequently adversely affecting the amount of transaction fees that can be collected from merchants who only accept cash, especially if the transaction fees are based on a percentage and/or count of transactions. If the transaction is paid using cash, the amount that was actually transacted is difficult to verify remotely, as the merchant can claim the consumer did not pay cash and complete the transaction. Thus, the merchant may claim they should not be liable for any fees associated with such transactions. Similarly, for tax collection, tracking tax liability for cash transactions is difficult, especially from small and medium sized businesses that under-report their sales to avoid taxes. Digital stamp authentication as shown in FIG 12 adds a layer of fraud prevention as merchants must either try to avoid stamping user devices or deny that they stamped the user device. This is difficult when users have an expectation of getting their user device digitally stamped under appropriate circumstances.

Referring to FIG 13, there is shown an eighth implementation of the method. It should be noted that the eighth implementation relies on a central server being communicatively coupled to a user device, a merchant device and a payment system. The method is carried out in the following manner:

- 1) The user device is used to select a merchant, and to submit at least one request (order) for the at least one good/service, the instructions being input to the central server.
- 2) Optionally, the central server then carries out processing of payment for the at least one request by communicating with the payment system.
- 3) Data for the at least one request is then transmitted to the merchant device.
- 4) Optionally, the merchant device then transmits an acknowledgement to the central server. The merchant then proceeds to provide the at least one good/service to the user as per the at least one request.
- 5) Subsequently, the central server transmits an order confirmation to the user device.
- 6) The user device then captures biometric information from a merchant staff. The biometric information can include, for example, a finger-print, a retina scan, a facial scan, a vocal sequence, and so forth.
- 7) The user device transmits the biometric data to the central server.
- 8) The central server validates the biometric data using data previously associated with the merchant.
- 9) The central server transmits a validation response message to the user device.
- 10) Optionally, the merchant device and/or the payment system then receives confirmation of payment being carried out.

Once the user is biometrically validated, the user device can then be utilised to provide an allocated vote associated with the digital stamp for the merchant. This vote may optionally be limited to a pre-determined duration of time. It should be appreciated that there can be instances when electronic payments involving the payment system is not carried out. In those instances, conventional non-digital payment processes can be carried out in place of step 2 described above.

Even though the order of steps indicated above is indicated in FIG 13, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

5

Referring to FIG 14, there is shown a ninth implementation of the method. It should be noted that the ninth implementation relies on a central server being communicatively coupled to a user device, a merchant device and a payment system. The method is carried out in the following manner:

10

1) The user device is used to select a merchant, and to submit at least one request (order) for the at least one good/service, including data on an amount to be tendered using physical cash, the instructions being input to the central server.

15

2) The central server then carries out processing of payment for the at least one request by communicating with the payment system, and checking that excess currency from the physical cash can be deposited in an account associated with the user. This check may be required if there is a maximum amount that can be held in the account. It is optional because the transaction could be for a new user.

3) Data for the at least one request is then transmitted to the merchant device.

20

4) Optionally, the merchant device then transmits an acknowledgement to the central server.

5) Optionally, the central server transmits an order confirmation to the user device.

6) Physical cash is tendered at this juncture in the amount defined in (1), upon which validation of receipt of payment is carried out. The merchant uses the merchant device to transmit a payment receipt notification to the central server.

25

7) The central server then transmits the payment acknowledgement to the user device.

8) Optionally, the central server then transmits a payment validation message to the payment system to validate the user's account for crediting with excess cash if necessary.

9) Optionally, the central server transmits a payment confirmation to the merchant device.

30

Once the transaction is validated, the user account can then be credited with an allocated vote associated with the user device for the merchant up to a pre-determined duration of time.

Even though the order of steps indicated above is indicated in FIG 14, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

5

As mentioned earlier, transactions involving use of physical currency can be difficult to verify/trace. Disputes relating to whether a physical currency transaction took place can arise if there are payable fees for each transaction. Moreover, some merchants may fraudulently declare increased transaction volumes in order to generate more votes to game the system into improved ratings for the business. Thus, advantageously, accepting physical currency but storing excess currency (that is, change) in a digital wallet as shown in FIG 14, adds an additional indicator that aids in verifying if a transaction actually took place. Users should take steps to ensure the funds in the digital wallet are properly administered to. This aspect helps improve an integrity of vote allocation, the ratings systems, and enables fraud management.

15

In some embodiments, payment systems that utilize the system depicted in FIG 14 may levy a fee on a merchant for every transaction. This would discourage merchants from relying on transactions involving receipt of physical currency. This reduces the likelihood of a merchant trying to generate fraudulent vote allocations.

20

Referring to FIG 15, there is shown a tenth implementation of the method. It should be noted that the tenth implementation relies on a central server being communicatively coupled to a user device, a merchant device and a payment system. The method is carried out in the following manner:

25

1) The user device is used to select a merchant, and to submit at least one request (order) for the at least one good/service, including data on an amount to be tendered using physical cash, the instructions being input to the central server.

30

2) The central server then carries out processing of payment for the at least one request by communicating with the payment system, and checking that excess currency from the

physical cash can be deposited in an account associated with the user. This check may be required if there is a maximum amount that can be held in the account

3) Data for the at least one request is then transmitted to the merchant device.

4) Optionally, the merchant device then transmits an acknowledgement to the central server.

5 5) Subsequently, the central server transmits an order confirmation to the user device.

6) Physical cash is tendered at this juncture in the amount defined in (1). The merchant uses the user device to validate the cash by placing a digital stamp associated with the merchant on the user device, or by a previously registered biometric authentication of a merchant using the user device, or by inputting into the user device a code and/or pattern previously associated with the merchant.

10 7) The user device then sends the validation data to the central server.

8) The central server validates the digital stamp, biometric authentication, or other input by merchant.

15 9) Optionally, the central server then transmits a payment validation message to the user device.

10) Optionally, the central server transmits a payment confirmation to the payment system to validate that the user's account should be credited with the excess cash, if any.

11) Optionally, the central server transmits a payment confirmation to the merchant device.

20 Once the digital stamp is validated the user device can then be utilised to provide an allocated vote associated with the digital stamp for the merchant up to a pre-determined duration of time.

25 Even though the order of steps indicated above is indicated in FIG 15, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

30 In the tenth embodiment, by combining digital stamp authentication with a physical currency transaction, and combining use of a digital wallet, the ability for the system to thwart false transactions or false repudiations from merchants is enhanced.

Referring to FIG 16, there is shown an eleventh implementation of the method. It should be noted that the eleventh implementation combines aspects from the aforementioned embodiments. The method is carried out in the following manner:

- 1) The user device is used to select a merchant, and to submit at least one request (order) for the at least one good/service, including data on an amount to be tendered using physical currency, the instructions being input to the central server.
- 2) The central server then carries out processing of payment for the at least one request by communicating with the payment system.
- 3) Data for the at least one request is then transmitted to the merchant device.
- 4) Optionally, the merchant device then transmits an acknowledgement to the central server.
- 5) Subsequently, the central server transmits an order confirmation containing a merchant validation request to the user device.
- 6) Physical currency is tendered at this juncture as per amount defined in (1). The merchant can do either of the following (6a) or (6b) to acknowledge they received the cash.
- 6a) As depicted in 6a1, the merchant uses the user device to validate receipt of the cash by placing a digital stamp associated with the merchant on the user device, or by a previously registered biometric authentication of a merchant using the user device, or by inputting into the user device a code and/or pattern previously associated with the merchant. As depicted in 6a2, the user device then transmits this data to the central server. As depicted in 6a3, the central server then transmits a validation request to a validation module to validate the merchant validation input. The validation module can be part of the central server. This validation module then sends a response to the central server indicating the status of the validation.
- 6b) The merchant uses the merchant device to transmit a payment receipt notification to the central server.
- 7) The central server then optionally transmits a validation request to a validation module to validate the merchant validation input. The validation module can be part of the central server.
- 8) Optionally, the central server transmits a payment confirmation to the payment system to validate that the user's account should be credited with the excess cash, if any.

9) Optionally, the central server then transmits a payment confirmation message to the merchant device.

10) The central server then transmits a vote allocation to the user device. The vote allocation should be in accordance to parameters as mentioned in an earlier portion of the description.

5 11) Optionally, the user device is used to provide a vote to the central server.

Even though the order of steps indicated above is indicated in FIG 16, it should be appreciated that the exact order can be varied, and some steps can be omitted or combined, where appropriate.

10

It should be noted that in the ninth, tenth and eleventh embodiments, users need not worry about receiving change for transactions with merchants, and consequently, digital wallets of the users are regularly topped up without a deliberate effort by the users. This is convenient and helpful for the users to convert their physical currency for use with their digital wallets.

15

Throughout this specification and claims which follow, unless the context requires otherwise, the word “comprise”, and variations such as “comprises” or “comprising”, will be understood to imply the inclusion of a stated integer or group of integers or steps but not the exclusion of any other integer or group of integers.

20

Persons skilled in the art will appreciate that numerous variations and modifications will become apparent. All such variations and modifications which become apparent to persons skilled in the art, should be considered to fall within the spirit and scope that the invention broadly appearing before described.

25

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

5 initiate, at a user device, at least one request for the at least one good/service;
transmit, from the user device, the at least one request for the at least one good/service;

receive, at a central server, at least one request to allocate at least one vote to a user;

receive, at the central server, the at least one vote of the user; and

10 determine, at the central server, a rating of the at least one good/service,
wherein the rating is dependent on an aggregation of votes received at the central server.

2. The system of claim 1, the system further including one or more data processors
15 configured to:

receive, at a payment system, at least one request to process payment, the payment being channelled to a merchant providing the at least one good/service.

3. The system of claim 1, the system further including one or more data processors
20 configured to:

transmit, to the central server, an indication that payment has been received by the merchant.

4. The system of any one of claims 2 to 3, wherein allocation of the at least one vote is
25 dependent on any parameter from a group consisting of: the user's spending behaviour, the user's social media influence, the user's activeness on social media, aggregation of transaction counts, transaction amounts, the merchant counts, the merchant amounts, the merchant category counts, the merchant category amounts, item counts, item category counts, item amounts, item category amounts, transaction category counts, transaction category amounts,
30 frequency of transactions, regularity of transactions, payment type, transaction status (rejected, refunded), and instances of participating in

reviewing/rating/ranking/connecting/referring/following/upvoting/liking a good/service, merchant, contributing media.

5. A data processor implemented method for carrying out an appraisal for at least one
5 good/service, the method comprising:

initiating, at a user device, at least one request for the at least one good/service;

transmitting, at the user device, the at least one request for the at least one
good/service;

receiving, at a central server, at least one request to allocate at least one vote to a user;

10 receiving, at the central server, the at least one vote of the user; and

determining, at the central server, a rating of the at least one good/service,

wherein the rating is dependent on an aggregation of votes received at the central
server.

15 6. The method of claim 5, further including:

receiving, at a payment system, at least one request to process payment, the payment
being channelled to a merchant providing the at least one good/service.

7. The method of claim 5, further including:

20 transmitting, to the central server, an indication that payment has been received by the
merchant.

8. The method of any one of claims 6 to 7, wherein allocation of the at least one vote is
dependent on any parameter from a group consisting of: the user's spending behaviour, the
25 user's social media influence, the user's activeness on social media, aggregation of transaction
counts, transaction amounts, the merchant counts, the merchant amounts, the merchant
category counts, the merchant category amounts, item counts, item category counts, item
amounts, item category amounts, transaction category counts, transaction category amounts,
frequency of transactions, regularity of transactions, payment type, transaction status
30 (rejected, refunded), and instances of participating in

reviewing/rating/ranking/connecting/referring/following/upvoting/liking a good/service, merchant, contributing media.

9. A central server configured for carrying an appraisal for at least one good/service, the central server including one or more data processors configured to:

receive, data relating to an ID of the at least one good/service;

receive, at least one request to allocate at least one vote to a user;

receive, from a user device, the at least one vote of the user; and

determine, a rating of the at least one good/service,

wherein the rating is dependent on an aggregation of votes received at the central server.

10. The server of claim 9, further including one or more data processors configured to: transmit, to a payment system, at least one request to process payment, the payment being channelled to a merchant providing the at least one good/service.

11. The server of claim 9, further including one or more data processors configured to: receive, from a merchant device, an indication that payment has been received by the merchant.

12. The server of any one of claims 10 to 11, wherein allocation of the at least one vote is dependent on any parameter from a group consisting of: the user's spending behaviour, the user's social media influence, the user's activeness on social media, aggregation of transaction counts, transaction amounts, the merchant counts, the merchant amounts, the merchant category counts, the merchant category amounts, item counts, item category counts, item amounts, item category amounts, transaction category counts, transaction category amounts, frequency of transactions, regularity of transactions, payment type, transaction status (rejected, refunded), and instances of participating in reviewing/rating/ranking/connecting/referring/following/upvoting/liking a good/service, merchant, contributing media.

13. A non-transitory computer readable storage medium embodying thereon a program of computer readable instructions which, when executed by one or more processors of a central server in communication with at least one user device and at least one merchant device, cause the central server to carry out a method for carrying an appraisal for at least one good/service,
5 the method embodying the steps of:

receiving, data relating to an ID of the at least one good/service;

receiving, at least one request to allocate at least one vote to a user;

receiving, from a user device, the at least one vote of the user; and

determining, a rating of the at least one good/service,

10 wherein the rating is dependent on an aggregation of votes received at the central server.

14. The storage medium of claim 13, the method further embodying the steps of:
transmitting, to a payment system, at least one request to process payment, the
15 payment being channelled to a merchant providing the at least one good/service.

15. The storage medium of claim 13, the method further embodying the steps of:
receiving, from a merchant device, an indication that payment has been received by
the merchant.

20 16. The storage medium of any one of claims 14 to 15, wherein allocation of the at least one vote is dependent on any parameter from a group consisting of: the user's spending behaviour, the user's social media influence, the user's activeness on social media, aggregation of transaction counts, transaction amounts, the merchant counts, the merchant
25 amounts, the merchant category counts, the merchant category amounts, item counts, item category counts, item amounts, item category amounts, transaction category counts, transaction category amounts, frequency of transactions, regularity of transactions, payment type, transaction status (rejected, refunded), and instances of participating in reviewing/rating/ranking/connecting/referring/following/upvoting/liking a good/service,
30 merchant, contributing media.

17. A system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one
5 good/service, the at least one good/service costing a transaction amount;

input, at the user device, a payment amount of physical currency for the at least one
good/service; and

process, at the central server, a remainder amount of physical currency subsequent to
deduction of the transaction amount from the payment amount,

10 wherein the remainder amount of physical currency is stored at a digital wallet.

18. The system of claim 17, the system further including one or more data processors configured to:

process, at the central server, at least one vote to a user based on the at least one
15 good/service;

input, at the user device, a vote for the at least one good/service transacted;

receive, at the central server, the at least one vote of the user; and

determine, at the central server, a rating of the at least one good/service,

wherein the rating is dependent on an aggregation of votes received at the central
20 server.

19. The system of any of claims 17 to 18, the system further including one or more data processors configured to:

transmit, to a validation module, a request to validate the user device.

20. A data processor implemented method for carrying out an appraisal for at least one
good/service, the method comprising:

initiating, at a user device, at least one request for the at least one good/service;

transmitting, from the user device, the at least one request for the at least one
30 good/service, the at least one good/service costing a transaction amount;

inputting, at the user device, a payment amount of physical currency for the at least

one good/service; and

processing, at the central server, a remainder amount of physical currency subsequent to deduction of the transaction amount from the payment amount,

wherein the remainder amount of physical currency is stored at a digital wallet.

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21. The method of claim 20, the method further including:

processing, at the central server, at least one vote to a user based on the at least one good/service;

inputting, at the user device, a vote for the at least one good/service transacted;

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receiving, at the central server, the at least one vote of the user; and

determining, at the central server, a rating of the at least one good/service,

wherein the rating is dependent on an aggregation of votes received at the central server.

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22. A system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one good/service;

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receive, at the user device, biometric information from a provider of the at least one good/service; and

validate, at a central server, the biometric information.

23. The system of claim 22, the system further including one or more data processors configured to

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receive, at the central server, at least one request to allocate at least one vote to a user;

receive, at the central server, the at least one vote of the user;

determine, at the central server, a rating of the at least one good/service,

wherein the rating is dependent on an aggregation of votes received at the central

30

server.

24. A system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one
5 good/service;

receive, at the user device, a digital stamp from a provider of the at least one
good/service; and

validate, at a central server, the digital stamp.

10 25. The system of claim 24, the system further including one or more data processors configured to:

receive, at the central server, at least one request to allocate at least one vote to a user;

receive, at the central server, the at least one vote of the user;

determine, at the central server, a rating of the at least one good/service,

15 wherein the rating is dependent on an aggregation of votes received at the central
server.

26. A system for carrying out an appraisal for at least one good/service, the system including one or more data processors configured to:

20 initiate, at a user device, at least one request for the at least one good/service;

transmit, from the user device, the at least one request for the at least one
good/service, the at least one good/service costing a transaction amount;

input, at the user device, a payment amount of physical currency for the at least one
good/service;

25 process, at the central server, a remainder amount of physical currency subsequent to
deduction of the transaction amount from the payment amount,

receive, at the user device, a digital stamp from a provider of the at least one
good/service;

validate, at a central server, the digital stamp;

30 receive, at the central server, at least one request to allocate at least one vote to a user;

receive, at the central server, the at least one vote of the user;

determine, at the central server, a rating of the at least one good/service,
wherein the rating is dependent on an aggregation of votes received at the central
server. and the remainder amount of physical currency is stored at a digital wallet.