A blackjack game is modified to include an auxiliary wager that is based on whether any of the hands at the blackjack table will beat the dealer’s hand. A player may thus place an auxiliary wager on whether his hand or a second player’s hand will beat the dealer. Alternate expressions of the concept allow variations in which player’s hand or how many hands may be included in the comparison.
PLAYER APPROACHES TABLE AND PURCHASES CHIPS 100

PLAYER PLACES PRIMARY WAGER 102

PLAYER PLACES AUXILIARY WAGER 104

DEALER DEALS FIRST HAND TO FIRST PLAYER 106

DEALER DEALS SECOND HAND TO SECOND PLAYER 108

DEALER DEALS DEALER HAND 110

RESOLVE HANDS 112

DEALER DETERMINES WINNING HANDS 114

DEALER MAKE PAYOUTS AND COLLECTS LOSING WAGERS 116

HAVE ANY HANDS BEAT DEALER HAND? 118

PAY WINNING AUXILIARY WAGERS 120

COLLECT LOSING AUXILIARY WAGERS 122

COLLECT CARDS

FIG. 2
FIG. 7
BLACKJACK TEAM PLAY

RELATED APPLICATIONS

[0001] The present application claims the benefit of and priority to U.S. Provisional Application Ser. No. 60/957,363 filed Aug. 22, 2007.


[0005] The present disclosure is related to U.S. patent application Ser. No. 11/575,368, filed 15 Mar. 2007, entitled MULTIPLE POSITION SINGLE ROUND GAMING SLOT MACHINE AND METHOD.

[0006] The present disclosure is related to U.S. Patent Application Ser. No. 60/890,323, filed Feb. 16, 2007, entitled SYSTEMS AND METHODS FOR MULTI-PLAYER BLACKJACK GAMES AND REWARDS.

[0007] Each of the above patents and applications is hereby incorporated by reference in its entirety.

FIELD OF THE INVENTION

[0008] The present invention relates to a blackjack table game and in particular to a team based blackjack table game.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 illustrates a top plan view of a blackjack table suitable for use with at least one embodiment of the present disclosure.

[0010] FIG. 2 illustrates a flow chart illustrating a method of implementing at least one embodiment of the present disclosure.

[0011] FIG. 3 illustrates an alternate embodiment of a blackjack table suitable for use with at least one embodiment of the present disclosure.

[0012] FIG. 4 illustrates another alternate embodiment of a blackjack table suitable for use with at least one embodiment of the present disclosure.

[0013] FIG. 5 illustrates still another alternate embodiment of a blackjack table suitable for use with at least one embodiment of the present disclosure.

[0014] FIG. 6 illustrates an electronic blackjack table suitable for use with at least one embodiment of the present disclosure.

[0015] FIG. 7 illustrates a block diagram of some of the electronic components of the table of FIG. 6.

[0016] FIG. 8 illustrates an alternate electronic blackjack table suitable for use with at least one embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] In traditional blackjack, a player determines a wager for each hand, places the wager, helps resolve the hand that the player is dealt after game initiation, and collects any winnings. The player repeats the process for each hand. While social opportunities are possible through the conversations between players and the dealer, there is no opportunity for team play at traditional blackjack tables.

[0018] The present disclosure describes how team play may be introduced at a blackjack table. In particular, the present disclosure describes how a player may place an auxiliary wager that takes the better of two (or more) player hands at the table and compares this best hand to the dealer’s hand. If the best hand beats the dealer, then the player wins the auxiliary wager. Thus, the player may bust or otherwise lose on his own hand, but still win the auxiliary wager if one of the hands chosen to be covered by the auxiliary wager beats the dealer’s hand. Likewise, if all the other hands bust or lose to the dealer, so long as the player’s hand beats the dealer’s hand, the player still wins the player’s auxiliary wager. Numerous variations and permutations on this concept are discussed herein.

[0019] For the purposes of the present disclosure, a “better hand” as determined between two or more hands is the hand that is closest or equal to twenty-one without busting. For sake of clarity, a natural twenty-one (i.e., blackjack) is better than a twenty-one assembled through the use of a hit card. Once the better hand is identified between two or more hands, it is sometimes referred to herein as the best hand.

[0020] The concepts of the present disclosure may be applied to a simple blackjack table 10 as illustrated in FIG. 1. The blackjack table 10 may have a planar top surface 12. A dealer station 14 is positioned on one side of the blackjack table 10. The dealer station 14 may include a place for the dealer to stand, a chip rack 16, a card shoe 18, and a dealer hand area 20. Note that not all of these elements are necessary for dealer station 14. Likewise, additional elements or repositioning of these elements are contemplated as being within the scope of the present disclosure. For example a drop box, a discard pile area, or other elements could readily be added without departing from the scope of the concepts disclosed herein.

[0021] The chip rack 16 includes tubes or slots sized to handle a number of chips as is well understood. In practice, chips of differing denominations are placed in different tubes or slots. The dealer removes chips to pay winning wagers and collects chips into the chip rack 16 as the dealer collects losing wagers.

[0022] The shoe 18 may include a shuffler or just dispense cards as is well understood in the casino industry. The shoe 18 may be a single deck shoe or a multi-deck shoe as desired. In another embodiment, the shoe 18 may be eliminated, and card handling may be performed manually.

[0023] Dealer hand area 20 is the space into which the dealer deals his own hand. The dealer hand area 20 may have square indicia printed on the planar top surface 12 so that it is clear that cards placed proximate thereto are the dealer’s cards. Still other techniques of denoting the dealer hand area 20 may also be used.

[0024] A placard 22 may indicate the minimum and maximum bets as well as any other rules particular to the blackjack table 10 including rules relating to the present disclosure. Other rule indicia 24 may be printed on the top surface 12 as is well understood.

[0025] A plurality of player stations 26 may be positioned at the table on a curved side opposite the dealer station 14. While the precise number of player stations 26 may vary...
between tables, it is expected that between five and seven player stations 26 are readily accommodated at the table 10. Each player station 26 may have a primary betting circle 28 printed on the planar top surface 12 as is well understood. Additionally, each player station 26 may include an auxiliary betting circle 30. Note that while the betting circles 28, 30 are described as circles, variations in the size, shape, and precise placement of the indicia used to indicate the betting area are within the scope of the present disclosure and no limitation is implied by the use of betting circle. For example, square indicia would also fall within the intended scope of “betting circle”.

An exemplary embodiment of a method of using the table 10 is set forth in FIG. 2. A player approaches the table and purchases chips (block 100) as is well understood. Alternatively, a player may have chips from previous gaming activity, as part of a promotional package, or some other source as is well understood. The player waits for the dealer to signal that the dealer is accepting wagers. Once the dealer is accepting wagers, the player may place a primary wager (block 102) by placing one or more chips in the primary betting circle 28 as is well understood. The dealer may explicitly or implicitly acknowledge receipt of the primary wager or not according to the rules of the gaming establishment or as desired. The player may optionally place an auxiliary wager (block 104) by placing one or more chips in the auxiliary betting circle 30. Again, the dealer may explicitly or implicitly acknowledge receipt of the auxiliary wager.

The dealer deals a first hand of cards to a first player at a first player position 26 (block 106) and deals a second hand of cards to a second player at a second player position 26 (block 108). The dealer may deal additional hands of cards to other players at other player positions 26 depending on how many players are active at the table 10. The dealer also deals a dealer hand to dealer hand position 20 (block 110). While it is contemplated that the dealer may deal each hand separately, the dealer may also deal in a round robin format such that the dealer’s first card is dealt before the first player’s second card. Still other dealing schemes are possible and within the scope of the present disclosure.

The hands are resolved (block 112) according to traditional blackjack rules with players hitting, standing, splitting, doubling, or the like as is well understood. The dealer is obligated to play his hand according to the house rules, such as, for example, drawing on any hand with a soft seventeen or below. Such rules may be set forth in the rule indicia 24 as is well understood.

Once all the hands are resolved, the dealer determines which players, if any, have hands with values greater than the value of the dealer hand without busting (i.e., which hands are winning hands) (block 114). The dealer pays the winning hands and collects the wagers from the losing players (block 116), typically at one to one odds or three to two odds for natural blackjacks as is well understood. Likewise, for any pushes, the dealer returns the wager to the player as is well understood. In this embodiment, the dealer then resolves the auxiliary bet. Specifically, the dealer determines if any hands at the table beat the dealer’s hand (block 118). If the answer to block 118 is yes, then the dealer pays those players who made the auxiliary wager (block 120). If, however, no hands beat the dealer, the dealer collects the auxiliary wagers (block 122). In either event, the dealer also collects the cards (block 124) and repeats the process as indicated.

In this simple embodiment, the auxiliary wager is betting that at least one player at the table 10 will beat the dealer. The odds of this happening will fluctuate based on how many players are present at the table 10. In a first embodiment, the payout odds may vary based on how many people are playing. In this embodiment, as more people play, the payout on the auxiliary wager diminishes, reflecting the increased likelihood that someone would beat the dealer in any given hand. In a second embodiment, the payout odds may be set under the assumption that a maximum number of players are playing (i.e., if there are seven player positions 26, then the odds are based on seven hands being played against the dealer hand). Since this is a relatively frequent occurrence, the payout odds may be set fairly low. However, the simplicity of this embodiment is that no one has to keep track of which hands are being used to determine whether the auxiliary wager is a winning or losing wager. So long as one hand at the table beats the dealer, all players who made the auxiliary wager are allowed to use this “best hand” to win the auxiliary wager.

Gaming establishments may consider the following when determining an appropriate payout for a team game wager. In conventional blackjack (with an eight deck shoe and dealer hitting soft 17s), the probability of one hand beating the dealer hand is about 43%, the probability of losing to the dealer is about 48%, with ties making up the remaining 9% of hands. It should be noted that some of those 43% player winning hands are double down hands and natural blackjacks paying 3 to 2, resulting in a payback to the player that is close to 99% with correct basic strategy and reasonable house rules. Casinos can determine an approximate probability of more than one hand winning by using the formula \( P = 1 - (1 - p)^n \), where “\( p \)” is the probability of one hand winning (in this case 43%), and “\( n \)” is the number of players playing. Thus, the probability of at least one hand winning dramatically increases as more hands are added (e.g., 0.675 for two hands, 0.815 for three hands, etc.). As such, a team bet of $10 may only offer a $3 payout for two players, a $1 payout for three players, and less for more than three players. Of course, these payout amounts are only exemplary, and a gaming establishment may be able to offer payouts by adjusting traditional blackjack rules, as discussed below. It should also be noted that the formula given above does not take into consideration correlational effects among the hands (i.e., the fact that player hands are not independent outcomes since they are highly dependent on the final dealer hand total so that a group or three players would tend to lose all three hands more often than the formula might suggest). More precise probabilities could be determined through the use of Monte Carlo simulations.

An example of a round of play may be illustrative. In this example, there are three players and the dealer at the table. A first player places a $20 wager on his own hand by placing $20 worth of chips in primary betting circle 28 and a $10 wager on the auxiliary wager by placing $10 worth of chips in auxiliary betting circle 30. At the end of the round, the first player’s hand is eighteen. The second player has busted with a twenty-five. The third player has a twenty, and the dealer has a nineteen. The third player’s hand of twenty is better than the eighteen and the bust and is thus, the “best” hand. To settle the auxiliary wager, this best hand is compared to the dealer’s nineteen, and it is determined that the best hand beats the dealer’s hand. The first player, even though his own hand loses, still receives a payout based on the winning $10
auxiliary wager. As noted above, the payout may be only $1. So for a thirty dollar outlay, the player ends the round with S11, for a loss of nineteen.

Variations on the auxiliary wager include minimum or maximum amounts that may be placed in the auxiliary wager circle 30. These may be set by the gaming establishment or be a function of the primary wager made by the player. For example, the auxiliary wager may have to be twice the primary wager. As another example, the auxiliary wager may have to be half the primary wager. Still other limitations or parameters may be used to define a mandatory amount for the auxiliary wager.

While the embodiments of FIGS. 1 and 2 are relatively easy to implement, the payout odds on the auxiliary wager do not make the wager particularly exciting if the odds are based on a full table of active player positions. Likewise, while the use of every hand at the table promotes a sense of “us” against the dealer, it may be overly inclusive in that people may be forced to wager (albeit collectively) on people they do not know and/or whose playing styles may be of questionable judgment. Some players may resent being forced to wager on people that they do not trust to play smartly.

Thus, another embodiment of the present disclosure is presented in FIG. 3. Specifically a table 10.A is illustrated. Many of the elements of table 10.A are identical to the table 10 discussed above, and that discussion is not repeated. However, instead of a single auxiliary betting circle 30 for each player station 26, each player station has two auxiliary betting circles 30.A and 30.B. In the illustrated embodiment, a first auxiliary betting circle 30.A includes an arrow pointing to the right and a second auxiliary betting circle 30.B includes an arrow pointing to the left.

For the player stations 26.A & 26.N at either end of the table, one of the arrows in the auxiliary betting circles 30 may point to the player station 26 opposite such that player station 26.A points to player station 26.N and vice versa.

In this embodiment, instead of betting on the entire table, the team bet is based on a player and a person next to the player. Thus, for example, two friends sit down at adjacent player positions 26. The one on the left uses his auxiliary betting circle 30.A, and the one on the right uses her auxiliary betting circle 30.B. Note that to create a team, only one player has to place the auxiliary wager. However, in such circumstances, the other members of the team do not receive payouts for winning auxiliary wagers, and in some cases may not even realize that they are part of a team.

The process of using the table 10.A is much the same as the previous process, but in block 118, instead of determining if any hands have beat the dealer’s hand, the dealer determines if one of the two hands linked by the auxiliary wager have beaten the dealer’s hand. Thus, the dealer may see the auxiliary wager in a first player’s auxiliary betting circle 30.A and then look to the player position to the player’s right (dealer’s left) as indicated by the arrow to see if either hand beat the dealer’s hand. If the answer is yes, then the dealer makes a payout to the player that placed the auxiliary bet.

This embodiment takes advantage of the fact that acquaintances tend to sit next to one another and the designated directional auxiliary betting circles 30.A and 30.B allow the player to bet on a friend sitting next to them. Of course, the player does not have to know the player sitting next to them to wager on the player sitting next to them. Note that this embodiment also allows a player to place two auxiliary bets, one auxiliary bet for the better hand as between the player’s hand and the hand of the player to the right and the second auxiliary bet for the better hand as between the player’s hand and the hand of the player to the left.

Another embodiment, not specifically illustrated, but capable of implementation on the table 10 would be to have always have the auxiliary wager be designed to take the better hand from between the player’s hand and the hand of a player as determined by a particular rule. For example, the rule may state that an auxiliary wager is always representative of the better hand as determined between the wagering player’s hand and the hand of the player to the wagering player’s left. Alternatively, the better hand could be taken from between the player’s hand and the hand of the player to the player’s right. Other rules may also dictate which hands are a part of the auxiliary wager. So long as the rule was consistent across the table, the direction does not matter. Then, in the determining step, the dealer evaluates the hands of the two players as dictated by the rule of the table and makes the appropriate payout if one of the linked hands beats the dealer.

It should be noted that only one hand from amongst the plurality of hands designated by the auxiliary wager has to beat the dealer for the auxiliary wager to be a winner. If both hands beat the dealer, then, in a first embodiment, no change is made. In a second embodiment, if both hands beat the dealer, then an increased payout is provided reflecting the decreased odds that both hands would beat the dealer. If more than two hands are designated by the auxiliary wager (for example, as discussed in FIGS. 1 & 2), the payout may increase the more hands at the table beat the dealer.

Still another table is presented in FIG. 4. Specifically, table 10.B includes many of the same features previously discussed, but modifies the auxiliary wager indicia into auxiliary wager area 32. Each player station 26 has an auxiliary wager area 32, with individual indicator indicia 34 therein. The individual indicator indicia 34 correspond to the other player positions at the table 10.B. Thus, at player position 26.A, the auxiliary wager area 32 has individual indicator indicia 34.B-34.N corresponding to player positions 26.B-26.N. At player position 26.B, the auxiliary wager area 32 has individual indicator indicia 34.A & 34.C-34.N corresponding to player positions 26.A & 26.C-26.N. With the various individual indicator indicia, a player may place a “better hand” auxiliary wager on a player seated at any position at the table 10.B. Thus, if the player seated at any position 26.A wishes to make an auxiliary hand wager on herself and the player seated at 26.C, the player would place chips on the individual indicator indicia 34.C at player position 26.A.

The method of FIG. 2 remains essentially the same, but at the determining step, the dealer evaluates the position of the chips to determine which hands should be linked, compared to another to determine the better hand, and then the better hand compared to the dealer’s hand. A player may make multiple auxiliary wagers by placing chips on multiple individual indicator indicia.

One limitation of the table 10.B is that a player must make additional auxiliary wagers to link multiple hands. This limitation is addressed with table 10.C illustrated in FIG. 5. In particular, each player station 26 includes linking indicator indicia 36 having individual indicator indicia 38.A-38.N. An auxiliary wager area 40 is also associated with the player station 26. Using the table 10.C, a player can link a plurality of hands together by placing an indication on the appropriate individual indicator indicia 38.A-38.N within the player’s player station 26 and then placing a wager in the auxiliary
area 40. The indication may be lammers, chits, chips, tokens, beads, or the like and may be linked to the player position placing the wager through indicia (e.g., a #1 may be put on the indication to indicate that that indication belongs to player position #1, while a #2 may be put on indications belonging to player position #2, etc.). In use, the player places at least two indications on selected individual indicator indicia 38 to indicate that the player wishes to place an auxiliary wager on the better of the two hands so selected. Note that this embodiment allows the player to omit her own hand from the auxiliary wager. For example, if the player at position 26A places indications on individual indicator indicia 38B and 38C, then the player would be wagering that the better of the hands in player positions 26B and 26C would beat the dealer. Alternatively, the player may be required to wager on her own hand if desired, in which case only one indication is required to indicate the linked hand. Furthermore, this embodiment allows the player to wager more flexibly on a subset of the players at the table 10C. For example, a player could wager on player positions 26A, 26B and 26E with a single auxiliary wager. Additionally, this embodiment allows the player to indicate easily multiple auxiliary wagers. For instance, the player at position 26A may place a wager on each of the indicator indicia 38B and 38D, linking one auxiliary wager to the player at player position 26B and a second auxiliary wager to the player at player position 26D. Note also that while it is contemplated that the player will place the indication, it is also possible for the player to indicate verbally her selections, and the dealer place the indications.

When the dealer gets to block 118, the dealer evaluates which player positions have been indicated on the individual indicator indicia 38, determines the best hand from amongst those indicated and then compares the best hand to the dealer's hand to determine if the auxiliary wager is a winner.

While the above discussion focuses on tables that may be implemented without any special electronic equipment for the table, such “dumb” tables are not required to implement the present concepts. Rather, it is possible to implement the present concepts on a “smart” table. Such a smart table 50 is illustrated in FIG. 6.

The table 50 has a planar top surface 52 on which game play takes place. The table 50 further has a dealer station 54 and at least one player station 56 (seven shown). The dealer station 54 has space for the dealer to stand or sit and may include a dealer monitor 58, a chip rack 64, a dealer hand area 66, a shoe 68, and a placard 70. The dealer hand area 66 and placard 70 are substantially similar to the dealer hand area 20 and placard 22 previously described although variations on the structure and arrangement on the table 50 are contemplated and embraced by the present disclosure.

The dealer monitor 58 may be a display as that term is defined in the Rules of Interpretation set forth below. It is particularly contemplated that the dealer monitor 58 has touch screen functionality. Alternatively a keyboard or other input mechanism may be provided (not shown).

Chips 62 may be positioned in the chip rack 64 and used throughout the table 50. The chips may include a radio frequency identification (RFID) tag or memory with an electronic circuit or processor and an antenna. The chips 62 may be similar or identical to those disclosed in U.S. Pat. Nos. 5,166,502; 5,676,376; 6,021,949; and 6,296,190 and U.S. Patent Application Publication No. 2004/0219982, which are all incorporated by reference in their entireties. Gaming Partners International (GPI), of 1182 Industrial Road, Las Vegas, Nev. 89102 and Shuffle Master, Inc. of 1106 Palms Airport Drive, Las Vegas Nev. 89119 both sell RFID chips suitable for use with the table 50, although neither product is specifically required to practice the concepts of the present disclosure. The GPI chip uses a standard microchip made by Philips Semiconductors called the Vegas S, each of which has a unique serial number. The gaming establishment (e.g., casino) or other entity may associate values with each serial number. The association may be in a look-up table or the like. Alternatively, the unique identifier may be encoded to include information therein. Likewise, the chips 62 may be color-coded or include other indicia that indicate values to the player or dealer.

In use, the electronic circuit and antenna act as a transponder capable of responding to an interrogator (not shown). In essence, the interrogator sends out an electromagnetic signal that impinges upon the antenna, exciting a current within electronic circuit. In response to the excited current, the electronic circuit causes the antenna to emit a second electromagnetic signal as a response, which is received by the interrogator. The second signal has identifying information about the chip 62 encoded therein such that the interrogator can identify the chip on receipt of the second signal. The second signal may be generated passively or actively. That is, in a first embodiment, the energy from the interrogation signal provides sufficient power for the electronic circuit to use to send the second signal. In a second embodiment, the electronic circuit may include a battery or other power source, which is used to power the generation of the second signal. While batteries have increasingly small footprints and longer lives, it is generally more cost effective to have a passive transponder.

The chip rack 64 may be one such interrogator. An exemplary chip rack of this sort is made by GPI under the tradename CHIP BANK READER. Alternatively, the interrogators described in U.S. Pat. Nos. 4,814,589; 1982/0219982; 5,367,148; 5,651,548; and 5,735,742 and U.S. Patent Application Publication No. 2007/0184898—all of which are incorporated herein by reference in their entireties—could be used. Another RFID tag and interrogator suitable for use with at least some embodiments of the present disclosure are produced by Texas Instruments as the TAG-IT™ product line. An improved interrogator is discussed in U.S. Patent Application Publication 2006/0077036, which is also incorporated by reference in its entirety.

The shoe 68 may be an intelligent shoe such as the IS-T1™ and IS-B1™ or the MD1, MD2 sold by Shuffle Master, Inc. or comparable devices. The shoe 68 may be able to determine which cards are being dealt to which player position through RFID technology, image recognition, a printed code on the card (such as a barcode), or the like. The particular technique used to recognize cards is not central to the present disclosure. Further information about intelligent shoes may be found in U.S. Pat. Nos. 5,941,769 and 7,029,009, both of which are incorporated by reference in their entireties and U.S. Patent Application Publications 2001/0786227; 2004/0207156; 2005/0026681; 2005/0051955; 2005/0113166; 2005/0219200; and 2005/0062226 all of which are incorporated by reference in their entireties. In place of an intelligent shoe, cameras may be used with pattern recognition software to detect what cards have been dealt to what player positions. One method for reading data from playing cards at table games is taught by German Patent
The player station 56 may include a player hand area 74, a primary betting circle 76, a player tracking mechanism 78, a player display 80, and an auxiliary betting circle 60. As is the case with table 10, the player hand area 74 is an area into which the dealer deals the cards for the player. Note that if the shoe 68 cannot or does not track the cards, it is possible to use RFID technology or other image recognition technology to determine what cards have been dealt to the player once the cards have been placed in the player hand area 74. The interested reader is referred to the previously incorporated application 2004/0207156. The betting circle 76 may further be associated with an interrogator so that chips 62 placed in the betting circle 76 may be detected. Likewise, the auxiliary betting circle 60 may be associated with an interrogator so that chips 62 placed in the auxiliary betting circle 60 may be detected.

The player tracking mechanism 78 may be a card reader adapted to receive a magnetic stripe card such as are commonly used in gaming establishments. Alternatively, the player tracking mechanism 78 may be a smart card reader, an RFID interrogator that interrogates a player tracking RFID tag, or other device as desired.

The display 80 may be a display as that term is defined in the Rules of Interpretation set forth below. The display 80 may be a touch screen display and/or have associated input elements such as a keypad or keyboard. Collectively, the display 80 and any associated input elements are termed a player interface. Information about the player or other information may be presented on the display 80 as described herein. In a first embodiment, each player station 56 has its own display 80. In an alternate embodiment, all the player stations 56 at the table 50 share a single display 80 (not shown). Appropriate indicia may be used to distinguish which information relates to which player. In this embodiment, the display 80 may be positioned so that it is readily seen by each player. For example, the display 80 may be vertically mounted proximate the placer 70. The display 80 may be a touch screen display or include a keyboard, keypad or other user input as desired. While not shown, the player station 56 may also include a bill acceptor and/or a cashless gaming receipt printer or validating device such as a FutureLogic GEN2™ PSA-66 device configured to operate within an EZ-PAY™ system by IGT.

The various electronic components of the table 50 may communicate with one another as better illustrated by the block diagram of FIG. 7. A central processing unit (CPU) or processor 90 may act as the brains of the table 50. The processor 90 is a control system as that term is defined in the Rules of Interpretation set forth below. The processor 90 may be part of the table 50 or may be remotely positioned therefrom. It is possible that the processor 90 may be a central server that controls multiple tables concurrently if desired. The processor 90 may be communicatively coupled to the various components through a network (not labeled) as that term is defined in the Rules of Interpretation set forth below, a bus, or other communication system as desired.

The processor 90 may control all the various components and perform all the calculations according to software stored in a computer readable format in a memory unit (not shown). For example, the processor 90 may receive data from the shoe 68 in addition to the interrogator associated with the chip rack 64. Such interrogator may be referred to as chip rack sensor 64A. Likewise, the processor 90 may control the player tracking mechanisms 78, the displays 80 and any sensors that track bets such as chips sensors 76A and auxiliary chip sensors 60A. Chip sensors 76A may be interrogators associated with betting circles 76, while auxiliary chip sensors 60A may be interrogators associated with auxiliary betting circles 60. Alternatively, functions specific to individual player stations 56 such as control of the display 80, interpretation of data from the chip sensors 76A and the like may be controlled by player station processors 92. As yet another alternative (not illustrated), a single player station processor 90 may control all the player stations and a second processor 90 may control the table such that the single player station processor 90 is a client for the processor 90.

While the table 50 is particularly contemplated, it may be possible to modify an existing table to include the functionality of some or all of the embodiments of the present disclosure. For example, PGL with Shuffle Master and IGT, sells an intelligent table under the moniker INTELLIGENT TABLE SYSTEM™ together with software entitled TABLE MANAGER™ Other intelligent table systems sold by Progressive include the TABLELINK PLAYER TRACKING, TABLELINK CHIP TRACKING, TABLELINK GAME TRACKING, TABLELINK TOTALVIEW, and TABLELINK CUBE. Further intelligent table teachings can be found in U.S. Pat. Nos. 5,779,546; 6,676,517 and 7,011,309 as well as U.S. Patent Application Publications 2002/0147042; 2003/0039397; 2005/0026680; 2005/0051965; 2005/0054408; 2006/014577; 2006/0205472; 2007/002/6930, all of which are incorporated by reference in their entirety.

In use, the display 80 may be used to replicate any of the indicia for the dumb tables 10. Thus, for example, indicia 32 or 38 could be duplicated on the display 80. Alternatively, a graphical representation of the table 50 may be presented on the display 80. The player may use the touch screen interface of display 80 (or other input mechanism) to indicate which player positions are being linked for the purposes of the auxiliary bet. Then, processor 90, armed with the knowledge of what cards have been dealt to all players and to the dealer, is further apprised of the auxiliary wagers being made and the amounts associated with such auxiliary wagers by virtue of the auxiliary chip sensors 60A and the inputs from the display 80 (or other input mechanism). As the hands are resolved, the processor 90 may determine which of the linked hands is the better hand, compare the better hand to the dealer’s hand, and calculate a payout amount based on the odds of winning and the wager amount. Furthermore, the processor 90 may provide an output to the dealer display 58 and/or the player displays 80 as to which wagers have won and what the payout is for each winning wager. In this manner, various responsibilities may be removed from the dealer. Removing responsibilities allows the dealer to distribute cards, keep up a witty banter, and hopefully provide improved customer service while following the directions provided to the dealer through the dealer display 58 to ensure that proper payouts are made and the like.

As an alternative, the indicia 32, 38 of the tables 10 may be used in conjunction with corresponding interrogators to indicate auxiliary wagers. Still other variations on the placement of electronic components relative to the player position 56 for use in detecting auxiliary wagers, both in
terms of amount wagered and in terms of which hands are being linked for the auxiliary wager, are within the scope of the present disclosure.

As one exemplary alternative, in place of displays 80, a mobile terminal 94 (see FIG. 8) may be used. The mobile terminal 94 may communicate wirelessly with the processor 90 or may dock through a wired port so as to facilitate communication. The mobile terminal 94 may be a cellular phone, a handheld computing device, a palm style computing device, a laptop computing device, or the like. The mobile terminal 94 may act as a thin client for the processor 90 or may be a robust client that shoulders a large portion of the computational requirements for the player position 56.

As is readily apparent, there are myriad ways that a table 10 or table 50 may be constructed to support the concepts presented herein. Likewise, there are myriad ways that the gaming establishment may ascertain the information required to make decisions as well as determine the appropriate course of action based on that information. Likewise, several variations in the nature of the auxiliary wager have been presented. There are additional variations, and these are set forth below.

Variations

A first variation is in the nature of the payout to the player in the event of a winning auxiliary wager. As noted above, the odds of at least one out of five or more hands beating the dealer’s hand is relatively high. Thus, to preserve a house edge, the payoff odds are likely to be fairly low. Instead of lowering the odds to the point where they are not palatable, a rule change may be implemented to counter the player’s advantageous position in team bets. For example, where there is a tie between a hand and the dealer’s hand, the house may win. This rule change may apply to the auxiliary wager, the primary wager, or both as desired. Alternatively, comp points may be awarded at a different rate for auxiliary wagering. Still another rule change might be that the auxiliary wager is forfeited or pushed if the primary wager is won. In this manner, the player is prevented from winning twice and thus may effectively establish a house edge. Yet another rule change may be the requirement that the player pays a premium (almost like a cover charge) so that the player is eligible to make auxiliary wagers. This premium may be paid when the player purchases chips or some other time and may be indicated by a receipt, an electronic entry associated with the player tracking card, a marker, or some other technique as desired. As yet another variation, the player may pay a premium for the right to make a certain predetermined number of auxiliary wagers. Other rule changes are possible and may have the same financial import on the game. In any of these instances, the player may pay cash or the equivalent to the gaming establishment, may perform some value added service for the gaming establishment, may redeem comp points for the privilege, or other technique as desired. Still other rule changes might be that a dealer value of twenty-two results in a push for the auxiliary wager even though it is a bust in the primary wager. Another rule change might be that a player who makes an auxiliary wager must always hit on a fifteen or lower. Such a rule may force the player to play against an optimal strategy in the primary game and thus increase the house winnings in the primary game to offset payouts in the auxiliary wager. Another rule change is that a certain number of hands must beat the dealer. For example, if four hands are included in the best ball auxiliary wager, three hands must beat the dealer. The reduced odds of this occurring may allow better payouts to be provided. While three of four is specifically contemplated, other X of Y hand ratios are also possible. Still other rule changes are possible.

Another variation is in the timing of the auxiliary wager. In the embodiments described above, it is assumed that the auxiliary wager is made before the cards are dealt (see FIG. 2). However, this order is not specifically required. Rather, it is possible to accept wagers after the hands have been dealt and before any hit cards have been dealt to any players. Natural blackjacks on the part of players may be excluded from the determination of which is the best hand in such an instance since it is highly likely that the natural blackjack will beat the dealer’s hand (unless the dealer also has a natural blackjack), although such is not strictly required. As yet another option within this variation, both early and late auxiliary wagers may be allowed. In such an instance, early wagers may have the same, better, or worse odds than the late wagers. As yet another variation, the late wager may have variable payout odds based on the cards in each player’s hand and the dealer’s up card. Calculating payout amounts for late team bets uses the same formula discussed above in relation to calculating team bet probabilities placed before the deal. As “p” always represents the probability of a player beating the dealer, an updated probability must be calculated when a player has knowledge of the value of cards in her hand as well as the dealer’s hand. For example, when a player has an initial hand of “20” versus a dealer up card of eight, the player’s probability is drastically higher than 43%. Methods of calculating such probabilities are well known in the art.

This last variation is better suited to a smart table 50 so that the odds may be calculated quickly based on knowledge by the processor 90 of what cards have been dealt and to whom. This information and/or other information may be presented on the player display 80. A variation within this variation is that the late wager may be prohibited on hands that have a starting value above a predetermined threshold. For example, a player may be prohibited from making an auxiliary wager on any hand that has an initial value of nineteen or higher. Another example is that a player may be prohibited from making an auxiliary wager on a hand that is traditionally considered a pat hand (i.e., seventeen or higher).

If both early and late auxiliary wagers are allowed, then the indicia on the planar top surface 12 may be modified to dedicate separate areas for the approval of the dealer. For example, the auxiliary betting circle 30 may be divided into a green zone and a red zone with one color representing an early wager and the other color the late wager. Other colors, the particular placement of zones, or separate betting circles may be used without departing from the scope and spirit of the present disclosure.

While not strictly a variation, it is possible to market the auxiliary wager described herein as an insurance wager in that the chances of winning this auxiliary wager are higher than traditional blackjack. Thus, by posting an auxiliary wager, the player is insured that even if the player’s hand loses, there is still a chance to receive at least a partial payout based on the auxiliary wager. The auxiliary wager as an insurance wager is different than the traditional blackjack insurance wager which insures against the dealer receiving a natural twenty-one.

Another variation is submitting the primary bet with the auxiliary bet. That is, no traditional blackjack wagers are necessary, indeed traditional wagers may not even be offered at the table, only best hand type wagering. A variation on this
variation is that the best hand wager by a player excludes the player’s own hand from evaluation when determining the best hand.

[0069] As yet another variation, the player may not even be actively playing the primary game. Thus, the auxiliary wager may be a back bet style bet. For example, the player may be watching a number of other players playing at a table 10 and may place a $10 auxiliary wager on whether or not the best hand between at least two different player hands will beat the dealer. In a first embodiment, indicia may be displayed on the planar top surface 12 that allows the player to make such wagers on the table. In effect, the player is betting over the back of the other players. In another embodiment, the player may use a mobile terminal to place the wager, but the player views the action on the table. That is, the mobile terminal acts as a player station and allows the player to make the wager as the player is standing near the table. In still another embodiment, the mobile terminal receives a video feed of the table and the player makes the wager through the mobile terminal. This embodiment would allow the player to be removed from the table, for example, in her hotel room. Instead of a mobile terminal, this last embodiment may also be suitable for use with an online casino website. For more information on remotely wagering on a casino game through a network such as the Internet, the interested reader is referred to U.S. Pat. No. 6,508,709, which is hereby incorporated by reference in its entirety.

[0070] As another variation, the player may spread her primary wager into the auxiliary wager. Thus, after seeing the initial deal, the player may spread the original primary wager so that a portion covers a separate auxiliary wager as herein described. For example, a player places a $40 primary wager on whether her hand will beat the dealer. After the initial deal, she takes $20 from the initial primary wager and places it in the auxiliary betting circle 30. There are now two wagers for the player and the game play is resolved as previously described. Since the player is allowed to modify the primary wager in this manner, it may be possible that the gaming establishment will modify the paytable for the primary wager as well. This modification may be based on the expected value (less a suitable house edge) of the player’s hand relative to the dealer’s up card and may or may not take into account the hands of the other players in its calculations. Rules may be implemented which limit how much may be spread. Such rules may protect the house edge. For example, if the player has a weak hand, the player may be tempted to move most of the primary wager into the auxiliary wager. However, such a rule as herein proposed might limit the spread to fifty percent of the original primary wager. In another embodiment, the player may be able to convert the entire primary wager into an auxiliary wager, but limitations may be imposed. For example, the player may be required to include her hand in the auxiliary wager. Alternatively, the player may be required to not include her hand in the auxiliary wager. Other limitations may be that no hand that is a put hand (i.e., between seventeen and twenty-one) may be included in the auxiliary wager.

[0071] Another variation is how the auxiliary wager is indicated. The embodiments discussed above contemplate implementation in casinos, which are notoriously noisy. Thus, to combat the noise, the embodiments provide for a physical manifestation as an indication that the player is placing the auxiliary wager. However, such is not strictly required. Rather, the player may verbally indicate to the dealer that an auxiliary wager be placed and furthermore, the player may verbally indicate which player positions are linked by the auxiliary wager. The dealer may be responsible for remembering this information or may enter the information into the control system of the table (such as through the dealer display 58). Independent of whether the indication is verbal or physical, the dealer may prompt the player as to whether the player would like to make an auxiliary wager.

[0072] Instead of indicating the auxiliary wager with chips, it is possible to indicate the auxiliary wager with non-negotiable, colored markers. These markers may also be used to identify multiple hands that are linked in the auxiliary wager. In a first embodiment, each set of colored markers may be of a different color from other player’s sets and clearly distinguishable from the colored markers of other players. Thus, a player may place a colored marker on or next to a stack of chips to indicate that the stack of chips is an auxiliary wager. Then the player may also place (or instruct the dealer to place) a plurality of colored markers at other players’ positions to indicate that the other positions are linked to the player making the auxiliary wager. For example, a player places a $10 wager and three red markers on the planar top surface 12. One marker is placed next to the $10 wager to indicate an auxiliary wager. The other two markers are placed in front of his position and his neighbor’s position to indicate the linked hands supporting the auxiliary wager.

[0073] As noted above, the auxiliary betting circle 30 may have a set of rules indicating which player positions are associated with the auxiliary wager. While the embodiment of Fig. 1 contemplates the entire table, and the embodiment of Fig. 3 contemplates linking a first player’s hand to a neighbor’s hand, other permutations are possible. For example, a single auxiliary wager could link the players on either side of the betting player, but exclude the betting player’s hand. For example, a player at position #2 may make an auxiliary bet on player positions #1 and #3. Other default rules may be implemented. In another embodiment, the linked player positions are not chosen by rule or player choice, but are chosen randomly. For example, some form of random number generator (e.g., a spinner, a booster with balls, a die, a programmed processor (such as processor 90), or the like) may determine which player positions are linked for purposes of the auxiliary wager. As yet a further variation, the random hands may not even be at the table in question, but could come from some other table at the gaming establishment or other locale. A video feed from a security camera or other source may record and playback the play of the remote linked hand.

[0074] As noted elsewhere, there are various ways to signal the auxiliary wager electronically, such as through the player interface (e.g., display 80), through a mobile terminal, or the like. Additionally, the player may indicate the auxiliary wager through a smart gaming chip. For example, a gaming chip used at a blackjack table may include electronic components such as an LCD, LED or other type of display, memory, RFID sensors, and input devices (e.g., a push button, motion sensor, pressure sensor, or the like). In one embodiment, a table’s RFID sensors may detect wagering chips placed in an auxiliary betting circle and automatically determine the amount of the auxiliary wager. The hands included in the auxiliary wager may similarly be determined based on the position of the chips as determined by the RFID sensors. This information may then be sent automatically to the table’s processor, and likewise an output on a player or dealer’s display. In another embodiment, a player may press a button on the chip, causing the chip’s LCD screen to display the numbers “1” and “4”, and...
before the placing the chip in an auxiliary betting circle. The numbers displayed represent which hands are included in the auxiliary wager. Various other methods of using smart chips may also be used without departing from the scope of the present disclosure.

[0075] While not specifically required, additional rules may be implemented if two hands tie for best hand. In a first embodiment, both hands may be considered to be the best hand. However, in an alternate embodiment, a tiebreaking rule may be used. Exemplary tiebreaking rules might be based on the rank or suit of one or more cards contained in the tied best hands. For example, a hand of equal value that contains an ace may beat a hand that does not contain an ace. Alternatively, the number of cards in the hand may be used. Payouts may be based on the number of cards in the best hand, so such tiebreaking rules may be relevant.

[0076] As still another option, the existence of a tie may provide an ancillary rule change. For example, if two or more hands tie at a value that is less than the dealer hand’s value, then the fact that there is a tie may trump the dealer hand’s value and allow the auxiliary wager to be a winner wager. In such instances, the payout for the auxiliary wager may be greater than, less than, or the same as the payout for the auxiliary wager in the absence of a tie.

[0077] Another variation is the manner in which the best hand is indicated. In a first embodiment, the dealer may verbally state that a particular hand is the best hand and/or point to the best hand after it has been determined. In another embodiment, the processor 90 may cause a visual or audible indication to occur identifying the best hand. For example, the display 80 associated with the player position having the best hand may light up, buzz, or otherwise proclaim its status. Likewise such indications may be sent to mobile terminals as desired and the mobile terminal may provide an appropriate indication to the player using the mobile terminal.

[0078] In the embodiments set forth above, it is contemplated that there is a single dealer hand. As an alternate embodiment, the dealer may have a plurality of hands. The number of dealer hands may be a function of the number of hands involved in the auxiliary wager. For example, \( f(x)=x \), where \( x \) is the number of hands involved in the auxiliary wager. Alternate functions are \( f(x)=x+1 \); \( f(x)=x-1 \); and so on so that a reasonable number of dealer hands are dealt and evaluated to determine the best dealer hand to compare to the best of the player hands involved in the auxiliary wager. In a dumb table environment, the dealer may physically deal the additional hands. However, in a smart table environment, the table 50 may secure dealer hand information from other smart tables and use those hands as the additional dealer hands.

[0079] In still another embodiment, instead of comparing the best hand to a hand that is actually dealt to the dealer, the best hand may be compared to a predetermined value for the dealer. For example, all auxiliary wager hands are compared to a dealer value of nineteen. As a variation, the dealer may take the higher of a predetermined value or the dealer’s hand. Thus, if the dealer hand has a value of twenty, and the predetermined value is nineteen, the dealer compares the best hand to the twenty. It is possible to determine the odds more accurately with a predetermined value for the dealer and thus the house may offer more favorable odds by setting the predetermined value higher. As a variation, the predetermined value may be a function of the number of hands involved in the auxiliary wager (e.g., eighteen for two hands, nineteen for three, and twenty for four hands).

[0080] As another variation, instead of a set predetermined value, the dealer takes the higher of the dealer’s hand or one or more randomly determined dealer hand values. For instance, a random number generator can be programmed to pick a number between sixteen and twenty-one. For smart table 50, the processor 90 may determine this value and display this value on the dealer display 58 and/or the player displays 80. The random value may be weighted such that higher values are less likely to be produced than lower values and vice versa.

[0081] For both the predetermined and random dealer value embodiments, it is possible that the dealer takes the worse hand as between the dealer hand and the assigned value. As a further variation, the dealer only takes the worse hand if the dealer’s hand is not a bust. Thus, if the dealer has a good hand and the predetermined value to choose between, the dealer takes the worse, but if the dealer has a bust and the predetermined value to choose between, the dealer takes the predetermined value so that the player is not guaranteed to win.

[0082] As noted above, to improve the payout odds while maintaining an appropriate house edge, various rule changes may be implemented. One such rule change is that the auxiliary wager loses when the best hand of the auxiliary wager merely ties the dealer’s value (whether determined by hand or predetermined value). In other embodiments, ties may result in a push for the auxiliary wager winning. However, these latter two embodiments reduce the house edge or the payout odds if the house edge is maintained. Another way to resolve ties may include evaluating the other hands involved in the auxiliary wager. For example, if three player hands were linked by the auxiliary wager, and the dealer and best hand tied at nineteen, the second and hand might be evaluated to win the game. One rule might be that if there is a bust amongst the player hands, then the house wins the tie. Another rule might mean that if a second player hand also ties the best hand, then the player who made the auxiliary wager wins the tie. Alternatively, rules based on suit, rank, presence of a special card (e.g., one eyed jack), poker hand value, sum of player hand values, or the like may be used to break the tie.

[0083] Another variation is that the auxiliary wager may be active through multiple rounds. A smart table 50 may store and display past outcomes and output information to the dealer about which auxiliary wagers are winners after such a multi-round wager. The multiple round auxiliary wager may be for just the player’s hand or may be for multiple players, and may be compared to the best of the dealer’s hands during the rounds in question. Tables 1 & 2 illustrate this concept. Table 1 specifically shows where the player wagers on his own hand across three rounds. As the player’s twenty-one in round 1 is the best hand and it beats the dealer’s best hand of nineteen, the dealer wins the auxiliary wager. Table 2 shows where a player wagers on three players hands across three rounds. Again, the player’s twenty-one beats the dealer’s best hand of nineteen, so the dealer wins the auxiliary wager.

<table>
<thead>
<tr>
<th>Situation #1</th>
<th>Player A</th>
<th>Player B</th>
<th>Player C</th>
<th>Dealer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1</td>
<td>21</td>
<td>17</td>
<td>Bust</td>
<td>19</td>
</tr>
<tr>
<td>Round 2</td>
<td>Bust</td>
<td>Bust</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Round 3</td>
<td>20</td>
<td>21</td>
<td>Bust</td>
<td></td>
</tr>
<tr>
<td>Best Hand</td>
<td>21</td>
<td>N/A</td>
<td>N/A</td>
<td>19</td>
</tr>
<tr>
<td>Winner?</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
<td>No</td>
</tr>
</tbody>
</table>
TABLE 2
<table>
<thead>
<tr>
<th>Situation #2</th>
<th>Player A</th>
<th>Player B</th>
<th>Player C</th>
<th>Dealer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 1</td>
<td>21</td>
<td>17</td>
<td>Bust</td>
<td>19</td>
</tr>
<tr>
<td>Round 2</td>
<td>Bust</td>
<td>Bust</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Round 3</td>
<td>Bust</td>
<td>20</td>
<td>21</td>
<td>Bust</td>
</tr>
<tr>
<td>Best Hand</td>
<td>21</td>
<td>N/A</td>
<td>N/A</td>
<td>19</td>
</tr>
<tr>
<td>Winner?</td>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
<td>No</td>
</tr>
</tbody>
</table>

[0084] Another variation is that the multiple hands from multiple players are considered in a specific order. E.g., player A for round 1, player B for round 2, player C for round 3 (illustrated in table 2 by the bold font).

[0085] The concept may be extended from hands to hit cards. If players A & B are playing separate hands, and independently receive a hit card for each hand, then in exchange for an auxiliary wager from player A, player A may receive the better of the two hit cards to be applied to player A’s hand. Note that player B’s hit card would still apply to player B’s hand. Instead of player selection, the best card may automatically be applied according to an optimal strategy. This variation is well suited for use on a smart table 50 such that the card may be duplicated on the display 80 and the dealer display 58 may tell the dealer to ignore the hit card actually dealt to the player.

[0086] Another variation is to deconstruct the hands and assemble a best hand from the deconstructed elements. For example, if a first player is dealt a ten and a two and a second player is dealt an ace and a five, the auxiliary wager allows the ten and the ace to be pulled from the two hands and assembled into a natural blackjack (i.e., the best hand). In other words, the auxiliary wager is placed on the best hand from any two cards dealt to two or more players. This newly formed best hand is then compared to the dealer hand. Again, this variation is well suited for use on a smart table 50 that can do the deconstructing and the reassembly without disrupting the physical cards or game play at the table. Note that the availability of hands for use in the auxiliary wager may depend on whether the hand busted. If the hand busted, then its cards may in this optional variant of the variation, not be available for use in the auxiliary wager best hand. Mixing this variation with a temporal element allows the player to select the best cards from a plurality of the player’s own hands. For example, if in a first round, a player is dealt a queen and a two, and in the second round, the player is dealt a king and a five, the player may assemble the king and the queen into a best hand to be compared to the dealer’s best hand. In such an embodiment, a dealer best hand may also be derived temporally (e.g., the dealer may form a best hand from amongst a first and second round as well). More than two rounds may be evaluated for use in this embodiment.

[0087] In another variation, the player may be dealt two cards, decide which is best and discard/burn the other card. Each player then receives two additional cards, keeping the best card and discarding the other. Likewise, the process may be repeated for hit cards. Variations within this variation may allow the best card to be selected only for the first card dealt, only for the second card dealt, only for hit cards, or various combinations of these situations (e.g., first cards and hit cards, but not second cards). This embodiment is sometimes called a best card embodiment.

[0088] Another variation is that the auxiliary wager is a wager that at least a plurality of players will beat the dealer. The player designates which players are to be considered from amongst those at the table and designates how many hands will beat the dealer (X). Then, if X hands beat the dealer, the player wins the auxiliary wager. The selection may be set by the gaming establishment instead of player designation as a subvariation.

[0089] Still other variations include varying the payout method. Factors that may be considered are the manner or margin of victory and/or characteristics of the hand that beats the dealer. For example, a larger payout may be offered if the best hand beats the dealer by two or more. Another example is that a larger payout may be offered if the linked hands of the auxiliary wager have multiple blackjacks. Another example is that a larger payout may be offered if multiple hands beat the dealer.

[0090] As still another variation, a weighted payout may be provided. The player may designate a first hand and a second hand within the linked hands. If the first hand is better and beats the dealer, the payout may be 1.75 to 1. If however, the second hand is the better hand and beats the dealer, the payout may be 0.75 to 1. Instead of player designation, the gaming establishment may have preset rules which dictate which is the first hand and which is the second hand. For example, the hand of the player placing the auxiliary wager may always have to be the first hand. It should be appreciated that the weights set forth here are exemplary and other weights could be provided to maintain a desired house edge or for other reasons as desired.

[0091] Another variation is to make the payout dependent on how many people who placed an auxiliary wager won. This variation is loosely analogous to a pari-mutuel arrangement where the number of winners affects the payout.

[0092] A variation on the best card embodiment, instead of dealing two cards and discarding one and then dealing another two cards and discarding one, the player may initially be dealt three cards, two face up and one face down. The player then chooses to stay with the first two cards that were dealt face up, or whether the player desires to discard one of the face up cards and turn over the face down card. The player may then hit or stand as desired.

[0093] Still another variation is that the dealer may deal a community hand as the second hand for the auxiliary wager. This community hand may be resolved according to an optimal strategy, according to the rules the house plays by, by players individually, or other technique as desired. Players placing the auxiliary wager take the better of their hand or the community hand to compare to the dealer’s hand.

[0094] Note that many of the variations described herein may be mixed and matched. For example, a player may place a wager through a mobile terminal from a remote location before the deal or after the deal. Still other mixing and matching is within the scope and spirit of the present disclosure.

[0095] As yet another variation, instead of “best ball” type comparisons, a worst ball comparison may be used. For example, if three hands are used to make up the basis for the auxiliary wager, the worst hand from amongst the three is selected and compared to the dealer hand. Only if this worst hand beats the dealer would the auxiliary wager be considered a winning wager. One reason for this approach is that the odds of the worst hand beating the dealer are low, so payouts on the auxiliary wager may be increased. Note that this may change strategy for players because players will strive to avoid busting more (since any bust effectively becomes the worst hand and automatically makes the auxiliary wager a losing wager).
Variations on this are possible, such as if the worst hand is a push, the auxiliary wager may push. The worst hand may be selected only from active hands, thereby disregarding busted hands. Still other permutations are within the scope of the present disclosure.

Rules of Interpretation

[0096] Numerous embodiments are described in this disclosure, and are presented for illustrative purposes only. The described embodiments are not, and are not intended to be, limiting in any sense. The presently disclosed invention(s) are widely applicable to numerous embodiments, as is readily apparent from the disclosure. One of ordinary skill in the art will recognize that the disclosed invention(s) may be practiced with various modifications and alterations, such as structural, logical, software, and electrical modifications. Although particular features of the disclosed invention(s) may be described with reference to one or more particular embodiments and/or drawings, it should be understood that such features are not limited to usage in the one or more particular embodiments or drawings with reference to which they are described, unless expressly specified otherwise.

[0097] The present disclosure is neither a literal description of all embodiments nor a listing of features of the invention that must be present in all embodiments.

[0098] Neither the Title (set forth at the beginning of the first page of this disclosure) nor the Abstract (set forth at the end of this disclosure) is to be taken as limiting in any way as the scope of the disclosed invention(s).


[0100] The terms “an embodiment”, “embodiment”, “embodiments”, “the embodiment”, “the embodiments”, “one or more embodiments”, “some embodiments”, “one embodiment” and the like mean “one or more (but not all) disclosed embodiments”, unless expressly specified otherwise.

[0101] The terms “the invention” and “the present invention” and the like mean “one or more embodiments of the present invention.”

[0102] A reference to “another embodiment” in describing an embodiment does not imply that the referenced embodiment is mutually exclusive with another embodiment (e.g., an embodiment described before the referenced embodiment), unless expressly specified otherwise.

[0103] The terms “including”, “comprising” and variations thereof mean “including but not limited to”, unless expressly specified otherwise.

[0104] The terms “a”, “an” and “the” mean “one or more”, unless expressly specified otherwise.

[0105] The term “plurality” means “two or more”, unless expressly specified otherwise.

[0106] The term “therein” means “in the present disclosure, including anything which may be incorporated by reference”, unless expressly specified otherwise.

[0107] The phrase “at least one of”, when such phrase modifies a plurality of things (such as an enumerated list of things) means any combination of one or more of those things, unless expressly specified otherwise. For example, the phrase at least one of a widget, a car and a wheel means either (i) a widget, (ii) a car, (iii) a wheel, (iv) a widget and a car, (v) a widget and a wheel, (vi) a car and a wheel, or (vii) a widget, a car and a wheel.

[0108] The phrase “based on” does not mean “based only on”, unless expressly specified otherwise. In other words, the phrase “based on” describes both “based only on” and “based at least on”.

[0109] Where a limitation of a first claim would cover one of a feature as well as more than one of a feature (e.g., a limitation such as “at least one widget” covers one widget as well as more than one widget), and where in a second claim that depends on the first claim, the second claim uses a definite article “the” to refer to the limitation (e.g., “the widget”), this does not imply that the first claim covers only one of the feature, and this does not imply that the second claim covers only one of the feature (e.g., “the widget” can cover both one widget and more than one widget).

[0110] Each process (whether called a method, algorithm or otherwise) inherently includes one or more steps, and therefore all references to a “step” or “steps” of a process have an inherent antecedent basis in the mere recitation of the term “process” or a like term. Accordingly, any reference in a claim to a “step” or “steps” of a process has sufficient antecedent basis.

[0111] When an ordinal number (such as “first”, “second”, “third” and so on) is used as an adjective before a term, that ordinal number is used (unless expressly specified otherwise) merely to indicate a particular feature, such as to distinguish that particular feature from another feature that is described by the same term or by a similar term. For example, a “first widget” may be so named merely to distinguish it from, e.g., a “second widget”. Thus, the mere usage of the ordinal numbers “first” and “second” before the term “widget” does not indicate any other relationship between the two widgets, and likewise does not indicate any other characteristics of either or both widgets. For example, the mere usage of the ordinal numbers “first” and “second” before the term “widget” (1) does not indicate that either widget comes before or after any other in order or location; (2) does not indicate that either widget occurs or acts before or after any other in time; and (3) does not indicate that either widget ranks above or below any other, as in importance or quality. In addition, the mere usage of ordinal numbers does not define a numerical limit to the features identified with the ordinal numbers. For example, the mere usage of the ordinal numbers “first” and “second” before the term “widget” does not indicate that there must be no more than two widgets.

[0112] When a single device or article is described herein, more than one device or article (whether or not they cooperate) may alternatively be used in place of the single device or article that is described. Accordingly, the functionality that is described as being possessed by a device may alternatively be possessed by more than one device or article (whether or not they cooperate).

[0113] Similarly, where more than one device or article is described herein (whether or not they cooperate), a single device or article may alternatively be used in place of the more than one device or article that is described. For example, a plurality of computer-based devices may be substituted with a single computer-based device. Accordingly, the various functionality that is described as being possessed by more than one device or article may alternatively be possessed by a single device or article.

[0114] The functionality and/or the features of a single device that is described may be alternatively embodied by one or more other devices that are described but are not explicitly described as having such functionality and/or features. Thus,
other embodiments need not include the described device itself, but rather can include the one or more other devices which would, in those other embodiments, have such functionality/features.

[0115] Devices that are in communication with each other need not be in continuous communication with each other, unless expressly specified otherwise. On the contrary, such devices need only transmit to each other as necessary or desirable, and may actually refrain from exchanging data most of the time. For example, a machine in communication with another machine via the Internet may not transmit data to the other machine for weeks at a time. In addition, devices that are in communication with each other may communicate directly or indirectly through one or more intermediaries.

[0116] A description of an embodiment with several components or features does not imply that all or even any of such components and/or features are required. On the contrary, a variety of optional components are described to illustrate the wide variety of possible embodiments of the present invention(s). Unless otherwise specified explicitly, no component and/or feature is essential or required.

[0117] Further, although process steps, algorithms or the like may be described in a sequential order, such processes may be configured to work in different orders. In other words, any sequence or order of steps that may be explicitly described does not necessarily indicate a requirement that the steps be performed in that order. The steps of processes described herein may be performed in any order practical. Further, some steps may be performed simultaneously despite being described or implied as occurring non-simultaneously (e.g., because one step is described after the other step). Moreover, the illustration of a process by its depiction in a drawing does not imply that the illustrated process is exclusive of other variations and modifications thereto, does not imply that the illustrated process or any of its steps are necessary to the invention, and does not imply that the illustrated process is preferred.

[0118] Although a process may be described as including a plurality of steps, that does not indicate that all or even any of the steps are essential or required. Various other embodiments within the scope of the described invention(s) include other processes that omit some or all of the described steps. Unless otherwise specified explicitly, no step is essential or required.

[0119] Although a product may be described as including a plurality of components, aspects, characteristics and/or features, that does not indicate that all of the plurality are essential or required. Various other embodiments within the scope of the described invention(s) include other products that omit some or all of the described plurality.

[0120] An enumerated list of items (which may or may not be numbered) does not imply that any or all of the items are mutually exclusive, unless expressly specified otherwise. Likewise, an enumerated list of items (which may or may not be numbered) does not imply that any or all of the items are comprehensive of any category, unless expressly specified otherwise. For example, the enumerated list “a computer, a laptop, a PDA” does not imply that any or all of the three items of that list are mutually exclusive and does not imply that any or all of the three items of that list are comprehensive of any category.

[0121] Headings of sections provided in this disclosure are for convenience only, and are not to be taken as limiting the disclosure in any way.

[0122] A player “wagers” at least a single “unit of wager” to pay for a game start. In many gaming devices, a unit of wager may be referred to as a credit. Many gaming devices allow multiple credits to be wagered concurrently in exchange for an improved payable or more paylines. A unit of wager may be equivalent to a full dollar amount ($1, $5), a fractional dollar amount, a coin (e.g., $0.05 (nickel) or $0.25 (quarter)), or specified amount of another currency (e.g., a specified number of comp points). Some paytables may be expressed as a number of coins won relative to a number of coins wagered. In such instances, the term coin is the same as a unit of wager. Because gaming devices are embodied in different denominations, it is relevant to note that a coin, credit, or unit of wager on a first device may not be identically valued as a coin, credit, or unit of wager on a second device. For example, a credit on a quarter slot machine (on which the credit is equivalent to $0.25) is not the same as a credit on a five dollar slot machine (on which the credit is equivalent to $5.00). Accordingly, it should be understood that in embodiments in which a player may cash out credits from a first gaming device that operates based on a first denomination (e.g., a quarter-play slot machine) and establish, using only the cashed out credits, a credit balance on a second gaming device that operates based on a second denomination (e.g., a nickel-play slot machine), the player may receive a different number of credits on the second gaming device than the number of credits cashed out at the first gaming device. An interesting discussion of this concept can be found in U.S. Patent No. 5,277,424, which is hereby incorporated by reference in its entirety.

[0123] “Determining” something can be performed in a variety of manners and therefore the term “determining” (and like terms) includes calculating, computing, deriving, looking up (e.g., in a table, database or data structure), ascertaining, recognizing, and the like.

[0124] A “display” as that term is used herein is an area that conveys information to a viewer. The information may be dynamic, in which case, an LCD, LED, CRT, LCD, rear projection, front projection, or the like may be used to form the display. The aspect ratio of the display may be 4:3, 16:9, or the like. Furthermore, the resolution of the display may be any appropriate resolution such as 480i, 480p, 720p, 1080i, 1080p or the like. The format of information sent to the display may be any appropriate format such as standard definition (SD TV), enhanced definition (ED TV), high definition (HD), or the like. The information may likewise be static, in which case, painted glass may be used to form the display. Note that static information may be presented on a display capable of displaying dynamic information if desired. Some displays may be interactive and may include touch screen features or associated keypads as is well understood.

[0125] The present disclosure frequently refers to a “control system”. A control system, as that term is used herein, may be a computer processor coupled with an operating system, device drivers, and appropriate programs (collectively “software”) with instructions to provide the functionality described for the control system. The software is stored in an associated memory device (sometimes referred to as a computer readable medium). While it is contemplated that an appropriately programmed general purpose computer or computing device may be used, it is also contemplated that hard-wired circuitry or custom hardware (e.g., an application specific integrated circuit (ASIC)) may be used in place of, or in combination with, software instructions for implementa-
A “processor” means any one or more microprocessors, CPU devices, computing devices, microcontrollers, digital signal processors, or like devices. Exemplary processors are the INTEL PENTIUM or AMD ATHLON processors.

The term “computer-readable medium” refers to any medium that participates in providing data (e.g., instructions) that may be read by a computer, a processor or a like device. Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media include, for example, optical or magnetic disks and other persistent memory. Volatile media include DRAM, which typically constitutes the main memory. Transmission media include coaxial cables, copper wire and fiber optics, including the wires that comprise a system bus coupled to the processor. Transmission media may include or convey acoustic waves, light waves and electromagnetic emissions, such as those generated during RF and IR data communications. Common forms of computer-readable media include, for example, a floppy disk, a flexible disk, hard disk, magnetic tape, any other magnetic medium, a CD-ROM, DVD, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, a RAM, a PROM, an EPROM, a FLASH-EPROM, a USB memory stick, a dongle, any other memory chip or cartridge, a carrier wave as described hereinafter, or any other medium from which a computer can read.

Various forms of computer readable media may be involved in carrying sequences of instructions to a processor. For example, sequences of instruction (i) may be delivered from RAM to a processor, (ii) may be carried over a wireless transmission medium, and/or (iii) may be formatted according to numerous formats, standards or protocols. For a more exhaustive list of protocols, the term “network” is defined below and includes many exemplary protocols that are also applicable here.

It will be readily apparent that the various methods and algorithms described herein may be implemented by a control system and/or the instructions of the software may be designed to carry out the processes of the present invention.

Where databases are described, it will be understood by one of ordinary skill in the art that (i) alternative database structures to those described may be readily employed, and (ii) other memory structures besides databases may be readily employed. Any illustrations or descriptions of any sample databases presented herein are illustrative arrangements for stored representations of information. Any number of other arrangements may be employed besides those suggested by, e.g., tables illustrated in drawings or elsewhere. Similarly, any illustrated entries of the databases represent exemplary information only; one of ordinary skill in the art will understand that the number and content of the entries can be different from those described herein. Further, despite any depiction of the databases as tables, other formats (including relational databases, object-based models, hierarchical electronic file structures, and/or distributed databases) could be used to store and manipulate the data types described herein. Likewise, object methods or behaviors of a database can be used to implement various processes, such as those described herein. In addition, the databases may, in a known manner, be stored locally or remotely from a device that accesses data in such a database. Furthermore, while unified databases may be contemplated, it is also possible that the databases may be distributed and/or duplicated amongst a variety of devices.

As used herein a “network” is an environment wherein one or more computing devices may communicate with one another. Such devices may communicate directly or indirectly, via a wired or wireless medium such as the Internet, LAN, WAN or Ethernet (or IEEE 802.3), Token Ring, or via any appropriate communications means or combination of communications means. Exemplary protocols include but are not limited to: Bluetooth™, TDMA, CDMA, GSM, EDGE, GPRS, WCDMA, AMPS, D-AMPS, IEEE 802.11 (WIFI), IEEE 802.3, SAP, SAS™ by IGT, OASIS™ by Aristocrat Technologies, SDS by Bally Gaming and Systems, ATP, TCP/IP, gaming device standard (GDS) published by the Gaming Standards Association of Fremont Calif., the best of breed (BOB), system to system (S2S), or the like. Note that if video signals or large files are being sent over the network, a broadband network may be used to alleviate delays associated with the transfer of such large files, however, such is not strictly required. Each of the devices is adapted to communicate on such a communication means. Any number and type of machines may be in communication via the network. Where the network is the Internet, communications over the Internet may be through a website maintained by a computer on a remote server or over an online data network including commercial online service providers, bulletin board systems, and the like. In yet other embodiments, the devices may communicate with one another over RF, cable TV, satellite links, and the like. Where appropriate encryption or other security measures such as logins and passwords may be provided to protect proprietary or confidential information.

Communication among computers and devices may be encrypted to insure privacy and prevent fraud in any of a variety of ways well known in the art. Appropriate cryptographic protocols for bolstering system security are described in Schechter, APPLIED CRYPTOGRAPHY, PROTOCOLS, ALGORITHMS, AND SOURCE CODE IN C, John Wiley & Sons, Inc. 2nd ed., 1996, which is incorporated by reference in its entirety.

The present disclosure provides, to one of ordinary skill in the art, an enabling description of several embodiments and/or inventions. Some of these embodiments and/or inventions may not be claimed in the present disclosure, but may nevertheless be claimed in one or more continuing applications that claim the benefit of priority of the present disclosure.

1. A method comprising:
   - dealing a first hand of cards to a first blackjack player at a blackjack table;
   - dealing a second hand of cards to a second blackjack player at the blackjack table;
   - dealing a third hand of cards to a dealer at the blackjack table;
   - receiving an auxiliary wager from a player that at least one of the first hand and second hand beats the third hand, wherein the auxiliary wager is distinct from a conventional blackjack wager;
   - determining whether either the first hand of cards or the second hand of cards beats the third hand of cards; and
   - providing a payout for the auxiliary wager to the player based on the determining.
2. The method of claim 1 wherein dealing any of the hands of cards comprises dealing physical cards.

3. The method of claim 1 wherein determining whether either the first hand of cards or the second hand of cards beats the third hand of cards comprises determining that only one of the first hand of cards and the second hand of cards beats the third hand of cards.

4. The method of claim 1 wherein the player comprises the first blackjack player.

5. The method of claim 1 further comprising determining whether both the first hand of cards and the second hand of cards beat the third hand of cards.

6. The method of claim 5 further comprising providing a second payout to the player if both the first hand of cards and the second hands of cards beats the third hand of cards.

7. The method of claim 1 wherein the first blackjack player is not also the second blackjack player.

8. The method of claim 1 further comprising providing a hit to at least one of the first hand of cards, the second hand of cards, or the third hand of cards.

9. The method of claim 1 further comprising determining the payout based on which hand beat the third hand.

10. The method of claim 1 further comprising determining the payout based on a margin of victory over the third hand.

11. The method of claim 1 wherein the second blackjack player comprises a community card position.

12. The method of claim 11 further comprising resolving the community card position using perfect strategy.

13. The method of claim 11 further comprising resolving the community card position based on input from the first blackjack player.

14. The method of claim 1 further comprising varying conventional blackjack rules when determining whether either the first hand of cards or the second hand of cards beats the third hand of cards so as to preserve a desired house edge while offering a 1:1 payout on the auxiliary wager.

15. The method of claim 4 further comprising receiving a primary wager from the first blackjack player, wherein the primary wager is the conventional blackjack wager relating to a primary comparison of the first hand of cards to the third hand of cards pursuant to conventional blackjack rules.

16. The method of claim 15 wherein the primary wager is larger than the auxiliary wager.

17-53. (canceled)

54. A method comprising:

receiving a primary wager from a player indicating a wager on whether a hand of cards dealt to the player will beat a hand of cards dealt to a dealer in a blackjack game;

receiving an auxiliary wager from the player indicating that at least one hand of all hands dealt to any player at the table will beat the dealer hand;

determining if at least one hand at the table beat the dealer hand; and

providing a payout for the auxiliary wager.

55. A method comprising:

receiving a primary wager from a player indicating a wager on whether a hand of cards dealt to the player will beat a hand of cards dealt to a dealer in a blackjack game;

receiving an auxiliary wager from the player indicating that a worst hand of a plurality of player hands will beat the dealer hand;

determining if the worst hand of the plurality of player hands beats the dealer hand; and

providing a payout for the auxiliary wager if the worst hand beats the dealer hand.

56. A method comprising:

receiving a primary wager from a player indicating a wager on whether a hand of cards dealt to the player will beat a hand of cards dealt to a dealer in a blackjack game;

receiving an auxiliary wager from the player that a second hand assembled from amongst all hands dealt to players of the blackjack game will beat the hand of cards dealt to the dealer;

dealing a plurality of hands of cards to a plurality of players at a blackjack table;

assembling the second hand from the plurality of hands; comparing the second hand to the dealer hand; and

providing a payout for the auxiliary wager if the second hand beats the dealer hand.

57. A method comprising:

receiving a first primary wager from a first player indicating a wager on whether a hand of cards dealt to the player will beat a hand of cards dealt to a dealer in a blackjack game;

receiving a first auxiliary wager from the first player indicating that at least one hand of a first plurality of hands dealt to other players at the table will beat the dealer hand;

receiving a second primary wager from a second player; and

receiving a second auxiliary wager from the second player indicating that at least one other hand of a second plurality of hands dealt to different players at the table will beat the dealer hand.

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